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## We're all in this together

*The respect of its users and developers  
is an asset Apple shouldn't squander*

THROWING SHADE AT Tim Cook is the latest tech trend. Analysts, journalists, rivals, commenters, they're all at it. This seems a bit unfair. It's true that Apple's share price has fallen by 40% in a year. But that hardly supports the narrative that things were great with Steve Jobs and went pear-shaped under Cook. He was appointed CEO in August 2011. More than a year later, the share price peaked. Shouldn't he get some credit for the ups as well as the downs?

It's not as if Cook arrived wet behind the ears. When he was promoted to the key role of chief operating officer in 2005, AAPL was at one eighth of its price today. All the products introduced since then, including every iPhone and iPad, were manufactured by the supply chain he built and managed.

Frustratingly, a publicly listed company's perceived value and predicted fortunes don't depend entirely, or sometimes at all, on its ability to ship and sell product. This is a world where endless metrics are bandied about, yet everything comes down to the gut feeling known as 'confidence'. Never mind what Tim Cook has actually achieved or is known to be capable of. If confidence in Tim Cook falls, AAPL falls. And, circling viciously, vice versa.

Trying to guess what would rebuild Wall Street's confidence in Apple is a job for pages pinker than mine. But it must also matter whether, in the more mundane domain we like to call the real world, those of us whose fortunes are enmeshed with the company's as customers and developers have confidence in it. And that's something Cook ought to find a lot simpler to address.



There may be a good reason why Apple has launched no new products for six months and is hinting that we should expect to wait six more; but we'd feel happier knowing what it was. Perhaps there's amazing stuff that we could be looking forward to, but the Cupertino wall of silence, erected by Jobs and defended by Cook, means we have little clue.

Buyers of Apple products have found their consumer rights poorly explained and patchily honoured. In China, official complaints were answered swiftly with a public apology. In Europe, nothing.

Hundreds of thousands of independent developers are working on apps for iOS, but they don't know if Apple will let them sell those apps. They might put all the time and money they can scrape up into something they believe complies with the vague and shifting App Store guidelines, only to be told it doesn't, with no comeback. That can't build confidence.

Even Apple's biggest bridge-building event for developers, WWDC, has become an opportunity to crow about its success at their expense. This year, the \$1,599 tickets sold out in two minutes. Impressive, but 'Click faster, suckers!' is no way to make friends.

When companies want to correct negative perceptions, they often talk to journalists. Apple's communications strategy is about *preventing* its people talking. Especially to journalists.

So I'd suggest one effective way to escape the shadow of Jobs would be to let Apple itself out of the shadows. We can all be more confident in a company that's open and honest with us. It's time Tim Cook showed he has the confidence to do so. ■

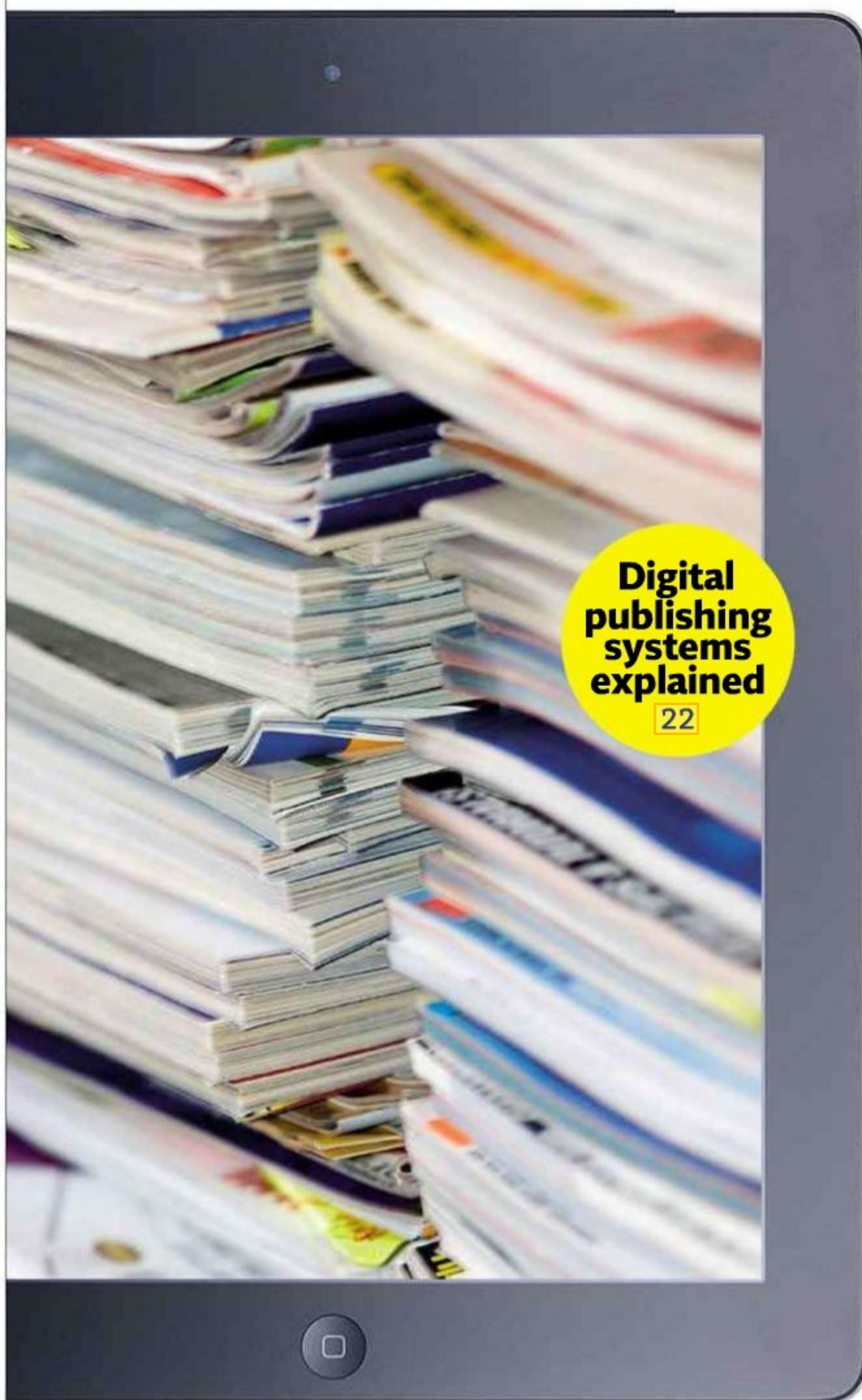


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### Digital publishing

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Whether you're an editor, designer, publisher, marketer, enthusiast, sceptic or just an interested reader, our tour of today's digital publishing systems will open your eyes. (And some of the prices will make them water.)





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*At the heart of the image*





# 28 days

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## More cash, less profit – so what next for Apple?

APPLE, AS WAS widely expected, has reported its first fall in quarterly profit in a decade. The company made \$9.5 billion in the three months to the end of March, down from \$11.6bn in the same period last year. Revenue rose to \$43.6bn from \$39.2bn, but the company projected sales for the following quarter of only \$33.5 to \$35.5bn, below the \$38.25bn Wall Street had been forecasting.

The fall in earnings was due to a substantial reduction in gross margin, which dipped below 40%. In the conference call Apple regularly holds for analysts after results are announced, the company said it had taken a strategic decision to price the iPad mini at a point where its margin would be lower.

Total sales of iPads rose by 65% year on year to 19.5 million. iPhone sales grew by 6.5% to 37.4m. Mac sales fell slightly but held up around 4m, beating a PC market slump.

'We are pleased to report record March quarter revenue thanks to continued strong performance of iPhone and iPad,' summarised Tim Cook, Apple's CEO, adding: 'Our teams are hard at work on some amazing new hardware, software and services, and we are very excited about the products in our

### Cook under pressure as quarterly results and forecasts lose pace

pipeline.' But pressed later on those plans, Cook mentioned a timeframe of 'the fall and into 2014'. Apple's last major product launch was the iPad mini in October 2012.

**APPLE ENDED THE** quarter with an even larger cash pile of \$145 billion, which belies its plummeting share price yet delivers no immediate benefit to shareholders. Addressing their concerns, recently highlighted by David Einhorn of Greenlight Capital, Apple announced that it had increased its buy-back scheme from \$10m to \$60m of stock. It described this as 'the largest single share repurchase authorisation in history' (though Exxon Mobil bought back a similar amount in shares between 2007 and 2008) and said it would be completed by October 2015. The company's dividend will also rise by 15%.

Apple also said it planned to borrow money in the coming months. This seems

bizarre when it has an excess of cash in hand, but most of that is held outside the US to avoid tax; borrowing to cover expenditure is much cheaper than repatriating it.

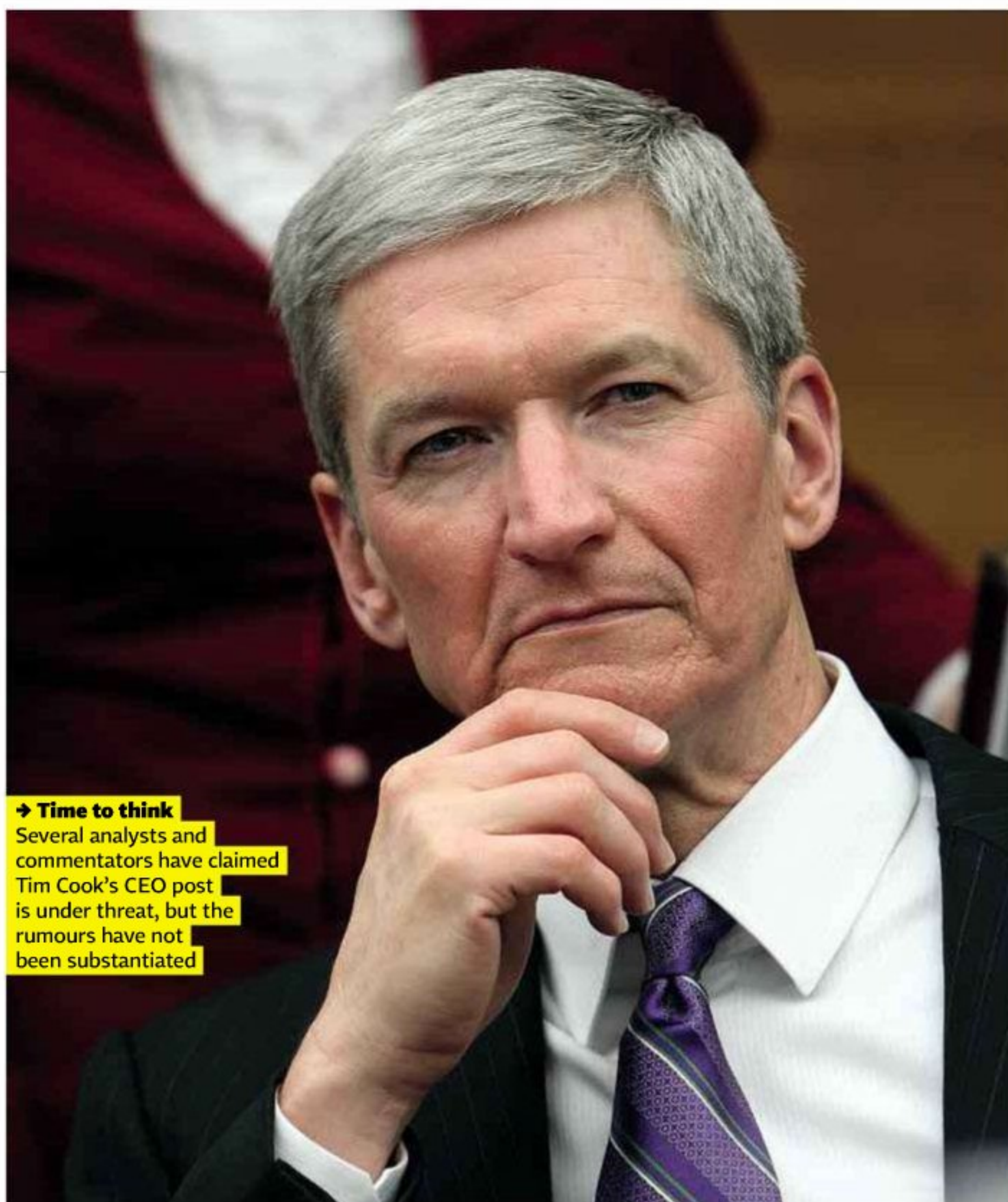
Apple's share price, which has fallen by more than 40% from its peak last year, remained hovering around the \$400 mark.

During the conference call, Cook hinted strongly that Apple would reveal something entirely new in the autumn when he mentioned 'the potential of exciting new product categories.' And his reference to 'hardware, software and services' raises the possibility of a launch such as the rumoured 'iRadio' music streaming service. Cook would only say that Apple had 'really great stuff coming'.

Asked whether there would be no new products before then, Cook was cagey. 'I don't want to be more specific, but I'm just saying we've got really great stuff coming in the fall, and across all of 2014.' Even now, more time has elapsed since 2012's iPad mini event than between any two major Apple announcements in recent years.

One product category Apple is unlikely to enter this year is the 'phablet', or oversized smartphone. The iPhone 5 has a relatively





→ **Time to think**

Several analysts and commentators have claimed Tim Cook's CEO post is under threat, but the rumours have not been substantiated

small screen, and a drop in the average selling price of iPhones, with high inventory, suggests this model has failed to maintain overall sales growth. Nevertheless, Cook claimed 'iPhone 5 has the absolute best display in the industry' and added: 'Some customers value large screen size. Others value resolution, colour, white balance, reflectivity, compatibility with apps... Our competitors have made trade-offs... We will not ship a larger display iPhone while these trade-offs exist.' This leaves the door open for a larger iPhone, but not immediately.

**FLAT MAC SALES** represented a relative success in a PC market that declined sharply last quarter. During the same January-March period, IDC found global PC sales fell by

14% as customers turned to tablets. Cook admitted the iPad might have cannibalised the Mac, but said he was confident Mac sales would remain strong. 'This market has a lot of life in it, and we're going to innovate. The huge growth in tablets may benefit the Mac - [the iPad] pushes you to think about that product in a different manner [and] may make you consider a Mac,' he said.

The Mac range is unlikely to wait until autumn for updates. Revisions often appear without a formal launch, as with the new MacBook Pro models in February, or at a scheduled event such as June's Worldwide Developers Conference (WWDC). The iMac and Mac mini were refreshed at the end of 2012, but the MacBook Air hasn't changed since June, so a summer update seems likely.

Apple has strongly hinted that a brand new version of the Mac Pro, which has already been withdrawn from sale in Europe, will arrive later this year. The Pro currently uses the top-end Xeon versions of Intel's processors. A Xeon E3, based on Intel's Ivy Bridge architecture, is due in the autumn, but the first Xeon versions of the newer Haswell architecture won't ship until 2014. ■

**'I don't want to be more specific, but we've got great stuff coming in the fall and across all of 2014'**

## While analysts fret about TV, next big thing could be radio

**ANALYST GENE MUNSTER** drew facepalms from Apple-watchers after yet again raising his pet topic of a putative branded TV set. But speculation is mounting that an internet radio service, similar to the one operated by Pandora in the US, could be closer to reality. CNET reported in April that Apple was 'close to striking a streaming deal with two of the major music labels' to allow it to stream their music.

According to the report, Apple has offered record companies a share of the revenue it would generate from radio-style adverts and would allow customers to easily buy a track they liked from iTunes. CNET said Apple was 'hoping to quickly unveil the service in up to a dozen territories, according to sources, including the UK, France, Germany, Australia, and Japan'. Multi-label, multi-territory deals are the holy grail of music services.

Apple dominates digital music purchasing, with two thirds of the market, and it seems natural that it would eventually launch a streaming service, particularly after acquiring music sharing store Lala in 2009. Currently, iTunes Match allows users to stream music from Apple's servers, but only those tracks that they already have in their iTunes Library.

Twitter launched a music service in April. #music can be accessed on the web or using an iPhone app and allows users to see music that's popular among people they follow as well as artists who are emerging and gaining popularity. Users with a Rdio or Spotify Premium account can hear full tracks, while others are limited to excerpts. Tracks can be bought via iTunes.

Another persistent Apple rumour is of a cheaper iPhone, and images claimed to show such a device emerged in April. Accessory maker Tactus blogged a photo of a white polycarbonate component said to be part of the chassis of a low-cost plastic iPhone.

France Telecom CEO Stephane Richard has pointed out: 'There are fewer early adopters, and probably with the next release of the iPhone this will be evident. Selling a phone for \$600 is getting more and more difficult.' ■



# Trading watchdog to investigate selling of in-app purchases

THE UK'S OFFICE of Fair Trading has launched an investigation into the way in-app purchases are marketed and sold to users. The OFT said it would look at 'whether children are being unfairly pressured or encouraged to pay for additional content in "free" web and app-based games, including upgraded membership or virtual currency such as coins, gems or fruit.' While Apple is not specifically targeted, the move appears to respond to stories of unwanted purchases on the App Store.

The OFT said it had written to developers whose apps include IAP as well as to parents and consumer groups. It didn't say if it had contacted Apple, and a question on this from MacUser received no response. MacUser, which has previously raised the issue with the OFT, has not been contacted in connection with the investigation.

The watchdog said it was 'looking into whether these games include "direct exhortations" to children – a strong encouragement to make a purchase, or to do something that will necessitate making a purchase, or to persuade their parents or other adults [to do so]. That would be unlawful under the Consumer Protection from Unfair Trading Regulations 2008.

'The OFT is not seeking to ban in-game purchases,' said senior director of consumer and goods Cavendish Elithorn, 'but the games industry must ensure it is complying with the relevant regulations so that children are protected. We are speaking to the industry and will take enforcement action if necessary.'

**IN FEBRUARY, APPLE** agreed to compensate parents in the US whose children had run up large bills from in-app purchases. The deal came as part of the settlement of a lawsuit launched by parents in 2011. No such agreement applies in the UK, but some parents have been refunded for unintended in-app purchases by children, including a Bristol couple whose child spent £1,700.

The 'freemium' model has grown in popularity with developers as users drive app prices down. App Annie Intelligence reported last year that 69% of iOS App Store revenue came from in-app purchases. While most cost only a pound or two, prices go up to £69.99, which might seem unreasonable for an addition to a game on a platform where few apps cost more than a tenth of that. Repetitive demands for IAP to keep games progressing are also a growing issue. ■



A NEW APPLE patent could change the way we interact with Macs. It covers what Apple calls 'virtual input tools'.

The patent application was made shortly after the launch of the iPad. As Patently Apple ([patentlyapple.com](http://patentlyapple.com)) explains: 'In July 2010 Apple listed a job posting that stated they were working on a new revolutionary Mac OS X feature. Today the US Patent and Trademark Office granted Apple a patent... that could very well be a part of [this].' The patent says in part: 'A virtual representation of an input device can be a two-dimensional area that increases an amount of data (eg virtual representations of objects) that can be presented at a particular time, thereby improving the user's experience.' Those representations, continues Patently Apple, 'could represent documents, interface elements (eg windows), directories, and other types of objects (eg controls for a video player).'

That could mean a trackpad on a MacBook Pro that displayed virtual buttons and controls. Adjusting these would manipulate content on the Mac's screen.

The interface could be called up and dismissed by tapping the surface, suggests the application.

Apple Insider ([appleinsider.com](http://appleinsider.com)) put its own spin on the idea. 'As with many Apple patents, it is unclear if the virtual input device will make its way to a consumer product, but [it] could be a useful stopgap if the company decides to create a laptop with a touchscreen display.' Ugh – awkward hybrid input systems? Samsung territory, surely.







#### → Popularity contest

Apple sells millions of products through stores such as this one in Shanghai, but has yet to fully crack China's mobile phone market

# New order averts China crisis

APPLE CEO TIM Cook again illustrated that his company is very different from the one he inherited when he issued a second public apology in a little over six months. This time, the mea culpa was to Apple's customers in China – but the real target was the country's media, which had castigated the US-based company for failing to respond to local concerns about the honouring of product warranties. China's authorities, which have considerable influence over parts of the media, were also involved in the criticisms, which may have had a larger political dimension in the context of Apple's plans for expansion in the territory.

In a letter written in Chinese and posted on Apple's website, Cook, a regular visitor to the People's Republic, explained that Apple had been 'profoundly reflecting' on the feedback it had received from customers and had studied China's warranty regulations along with government authorities. Apple had also, said Cook, considered the way it communicated its own policies to customers.

In a translation published by Forbes, the CEO said: 'We are aware that insufficient communication during this process has led

to the perception that Apple is arrogant and disregards, or pays little attention to, consumer feedback. We express our sincere apologies for any concern or misunderstanding arising therefrom.'

**COOK PROMISED THAT** Apple would improve its repair policies for the iPhone 4 and 4S; publish a 'concise and clear' statement of its warranty and policies on its website; improve supervision and training for authorised service providers in China; and make it easier for customers to contact Apple to provide feedback.

'Meanwhile, we also realise that we still have a lot to learn on operating and communicating in China. Here, we assure you, Apple's commitment and enthusiasm for

**'Insufficient communication has led to the perception that Apple is arrogant or disregards feedback'**

China is not different than any other country,' said Cook's text.

In reality, these moves show a very different attitude from that traditionally adopted by Apple in other countries. It has every reason to show more commitment and enthusiasm to the new Chinese customers it's courting than to those in its established markets in the rest of the world. The Apple Store retail operation is rapidly expanding in the country, but not quite as fast as Apple appears to want, perhaps reflecting a slower and less welcoming regulatory regime than the Silicon Valley giant is accustomed to. Meanwhile, the Chinese smartphone market is growing quickly, providing opportunities for Apple that Cook has previously remarked on, yet an official deal with the leading network, China Mobile, eludes him.

Customers in Europe will surely find the apology ironic, however, when no such reassurances have been offered to them. Apple has been fined by Italian authorities and singled out for criticism over the communication of its warranty policies by the EU. MacUser asked Apple why users here merited no apology. We got no answer. ■





# With end users off the hook, could newspaper copyright face death by a thousand cuttings?

THE SUPREME COURT in the UK has ruled that the Newspaper Licensing Agency (NLA) can't demand licence fees from clients of cuttings agencies that make their services available exclusively on the web.

The decision overturns one element of a Court of Appeal ruling in 2011 which found content that was merely copied to a web user's cache and displayed on their screen, for example as a result of their navigating to a web page, might infringe copyright. But other parts of that appeal ruling were not overturned: cuttings agencies themselves may still need a licence to supply headlines and extracts from news providers' content, and customers who receive cuttings by email may still need a licence to legally receive and retain content from such services.

The Supreme Court sent its ruling to the European Court of Justice for clarification.

Jorn Lyssegenn, chief executive of Meltwater, the agency that defended the original case, said: 'We are very pleased that the Supreme Court overruled the previous rulings of the Court of Appeals and the High Court that the simple act of browsing the internet could be copyright infringement.'

And with the multifaceted ruling allowing both sides to claim victory, NLA managing director David Pugh said after the announcement: 'We welcome the fact that core NLA principles have been upheld by the Supreme Court: paid-for web monitoring services using publishers' content require copyright licences and therefore remuneration for publishers.'

'We are also pleased to see that the Supreme Court acknowledged that if an end user of an alert service delivered as a web link (rather than by email) were not required to pay a licence fee, then Meltwater's licence fee [payable to the NLA] would very likely be substantially higher.'

Meltwater currently supplies clients with cuttings both by email and on the web.

**'The Supreme Court overruled the ruling that the simple act of browsing the internet could infringe'**

The crux of the case was whether the viewing of copyright content on the web, and the necessary copying of that content to a cache and display, could constitute copyright infringement and thus should require a licence such as those sold by the NLA on behalf of newspaper owners. The Court of Appeal had ruled that it did, on the grounds that the 'acts of reproduction are those occasioned by the voluntary human process of accessing that web page.'

**IN ITS MORE** thoughtful judgment, the Supreme Court noted that the 'question potentially affects millions of non-commercial users of the internet who may, no doubt unwittingly, be incurring civil liability by viewing copyright material on the internet without the authority of the rights owner, for example because it has been unlawfully uploaded by a third party.'

'Similar issues arise when viewers watch a broadcast on a digital television or a subscription television programme via a set-top box.' Explaining the legal basis for the decision, Lord Sumption said that making a temporary copy for the purpose of viewing content was covered by Article 5.1 of a European directive which itself forms part of the Copyright, Designs and Patents Act 1988. 'It has never been an infringement of EU or English law to view or read an infringing article in physical form,' he said. The alternative 'would make infringers of many millions of ordinary users of the internet across the EU who use browsers and search engines for private as well as commercial purposes.'

James MacKenzie, commercial director of another cuttings agency, Cutbot Media Monitoring, told MacUser that if the Supreme Court ruling is confirmed by the ECJ 'it will allow the public across the European Union to visit public newspaper websites without being vulnerable to aggressive attempts to misuse copyright law. Clients of media monitoring firms like Cutbot would also no longer need a licence costing up to £22,000 merely to visit public web pages.'

Asked about the prospect of agency fees rising because the NLA could no longer charge those agency's customers for accessing cuttings on the web, MacKenzie told MacUser it would 'be perverse for the cost of that overturned licence simply to be shifted to companies like ours, given that we merely provide emails with links to that content on the publishers' own sites and never republish the content of articles'.

**THAT'S A VIEW** not shared by the NLA's commercial director, Andrew Hughes. When MacUser asked Hughes for his interpretation of the judgment, he explained that the Supreme Court had said that 'the fees that they [the NLA] charge to the intermediary



→ **No farm, no how!**  
Lord Sumption ruled that while commercial operations harvesting and presenting newspaper extracts on the web might require copyright licensing, end users viewing content didn't, whether or not their sources were properly licensed



should be increased appropriately and that fees should be collected from people uploading the data'. Lord Sumption actually said: 'It seems very likely (although I am not deciding the point) that the licence fee chargeable to Meltwater will be substantially higher if end users do not need a licence because on that footing the value of the rights for which Meltwater is licensed will be significantly higher.' That, said Lord Sumption, would be 'more satisfactory' than charging fees to 'hundreds (in other cases it may be millions) of internet viewers'.

Hughes was keen to stress that the NLA has no wish to claim fees from individual web users. Instead, he said, in what he described as a 'practical distinction,' it licenses content to businesses which charge a fee

**'There's a practical difference between Google and cuttings agencies. Google doesn't charge users'**

for access to cuttings and to their clients who benefit commercially from that service.

This seems a very odd situation – after all, when MacUser licenses photos for reproduction in the magazine, for example, it doesn't also pass its subscriber list to the photo agency so that it can charge each reader separately for the privilege of looking at the pictures. But such has been the established system for newspaper cuttings licensing until now, and will remain so in media other than the open web.

What the NLA had never been interested in, Hughes told us, was charging a fee to individual end users of free-to-use services such as Google News, regardless of the fact that Google benefits commercially by displaying adverts next to summaries of news stories. 'There's a practical difference between what Google does and what Cutbot does; Cutbot charges for its service and Google doesn't,' he said. Yet Google makes far greater amounts of money from advertising around its services than Cutbot is likely to. The distinction risks looking less practical than opportunistic, and the licensing system unsustainably archaic.

Hughes, though, reckons the millions of pounds paid out by the NLA to the newspaper industry every year adds up to 'about 800 journalists' jobs', which is food for thought.

In a blog post after the ruling, Simon Clark and Toby Headdon of BLP Law, which represented the NLA, expressed concern that 'pirated copies of content online' would become 'fair game, with no disincentive for web users to use [il]legitimate sources.

'The copyright owner will be left to pursue the source of the pirated material, no doubt located offshore, or seek a blocking injunction against ISPs, which are often circumvented. The decision could be viewed by many as something of an online pirate's charter,' they wrote.

It seems implausible that online pirates will be queueing to take advantage of what the NLA itself says was a very specific ruling on a narrow and hypothetical point. If they do, they'll be competing with the service Google already offers free to any web user (individual or commercial). Charging people millions of pounds to tell each other news stories exist, on the other hand, is a tough model to reconcile with today's internet. ■





→ **Don't come for free**  
AppGratis CEO Simon Dawlat (front right) raised \$13.5m in January, saying much of it would be used for 'hiring talent'

# Apple stops developer offering app that helps developers offer apps

APPLE SEEMS TO be cracking down on apps that help users to find other apps of interest to them – or, to put it another way, apps that help app developers find customers.

In a move described by Silicon Valley blog AllThingsD as the first of many, the company removed 'daily free apps' app AppGratis from the App Store for violating clauses 2.25 and 5.6 of its guidelines, which prohibit promoting apps from other developers and push notifications for marketing.

AppGratis continues to offer app recommendations on its website, but says its app was instrumental in enabling it to grow from two to 30 employees during 2011. Its business model is to charge app developers a fee to include their apps, which although free invariably operate on a 'freemium' basis, providing features as in-app purchases.

**IT'S UNSURPRISING THAT** iOS developers would jump at any form of marketing made available to them, since Apple resolutely refuses to provide any promotional options within the App Store. But AllThingsD said Apple was worried that AppGratis and its ilk would 'threaten the legitimacy of the App Store charts by providing a way for developers to spend their way to a high ranking'. Its sources had told it 'AppGratis's ouster was a first step in a broader enforcement action generally targeted at app-discovery apps that run afoul of clauses 2.25 and 5.6'.

AppGratis CEO Simon Dawlat denies that AppGratis is in the business of gaming the App Store charts. He told TechCrunch: 'Reaching the the top of any App Store [chart]

is a simple and logical equation. But we're not in this business. We're in the business of helping end users discover new apps.'

This description is hard to reconcile with AppGratis's business model: users don't pay it to give them impartial recommendations, developers pay it to push their products to users. One way this could be done would be to game the App Store's 'top' charts, which Apple displays prominently.

Business Insider cited a menu of prices for developers that specified App Store chart positions and prices for attaining them. 'AppGratis estimates a ~\$100,000 buy will land an app in the top five slot in the US version of the App Store.' The implication was that this result could only be achieved by manipulating chart positions, for example by automated downloading of free apps.

But Dawlat described such suggestions as 'delusional', quoting internet entrepreneur Jason Calacanis's assessment that this was 'not gaming' but 'forecasting' and publishing an apology from the search expert who had originally alerted TechCrunch. Going 'back to our roots', the CEO said AppGratis would complement its daily newsletter with a web app – beyond the control of Apple. ■

**'Reaching the top of any App Store is a simple and logical equation. But we're not in this business'**



## Dirty Laundry

APPLE HAS HAD problems keeping secrets. There was that prototype iPhone that went missing in a bar. And that other prototype iPhone that went missing in a bar. But at least its employees don't often insult swathes of its users while discussing future products on social networks.

It was a spur-of-the-moment tweet that ended up costing Microsoft creative director Adam Orth his job. According to Jemima Kiss in the Guardian (guardian.co.uk), Orth 'triggered a colossal online debate after he was involved in a sarcastic exchange with a friend about the benefits of being connected [to the internet] that was seized on and, arguably, misinterpreted by games fans.'

What was so controversial? 'Orth appeared to confirm a rumour that the next Xbox will require an always-on internet connection. [Users] who have hit problems with games requiring persistent connections – most recently including SimCity and Diablo 3 – were concerned,' said the Guardian, employing the fine British art of understatement.

To cut a fairly short tweet even shorter, when reminded of the kind of place that doesn't yet have fast internet, Orth had asked why on earth he'd want to live there. Microsoft said his personal views 'do not reflect the customer-centric approach we take'. To communications, that is; there's still no word on connection requirements for the console.






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## Ex-Apple UI genius finds absence of genius in Apple UI

ALAN KAY KNOWS a thing or two about computers. A former Apple Fellow and before that an associate at Xerox PARC, whence so many of the paradigms borrowed by Steve Jobs that we continue to curse good-naturedly today, Kay was responsible for developing a vision of computing that encompassed hardware, software and services. Sound familiar?

Kay's Dynabook concept was a portable educational computer that, although too far ahead of its time to be manufactured, was eventually realised in part in projects such as One Laptop Per Child and in devices like the iPad.

Kay himself, however, isn't much impressed with Apple's PC-killing tablet. In an interview with Time magazine in April, he summarised disoblingly: 'Much of the iPad UI is very poor in a myriad of ways.' Kay said his original vision of the Dynabook was for 'symmetric authoring and consuming,' something today's devices aren't designed for.

'Apple with the iPad and iPhone goes even further and does not allow children to download an e-toy made by another child somewhere in the world. This could not be farther from the original intentions of the entire ARPA-IPTO/PARC community in the '60s and '70s,' objected Kay, referring to the US Department of Defense's Advanced Research Projects Agency and its Information Processing Techniques Office.

In a thinly veiled reference, the veteran computer scientist told Time: 'If [organisations] require a charismatic leader who will shoot people in the knees when needed, [their] process is a failure. It means no group can come up with a good decision and make it stick just because it is a good idea.'

## When is a blog not a blog? That's for courts to decide

CONFUSION REIGNS OVER which magazines, websites and blogs are intended to be covered by the Government's new Royal Charter-backed press regulation scheme, which has already been rejected as unworkable and illiberal by most newspapers.

As we reported last month, the hastily drafted legislation states that websites which publish 'news-related material' will be eligible. Joining the (yet to be established) regulator will be voluntary, but if publishers that are eligible don't join, they could be liable for higher 'exemplary' damages if they then lose a libel action brought against them.

**IN AN ATTEMPT** to clarify the position of websites and blogs, both the Department of Culture, Media and Sport and the lobby group Hacked Off – whose associate director, Evan Harris, now describes its role as that of a facilitator – held meetings with bloggers in April. William Perrin, who runs the Talk About Local blog, attended and found the process 'wholly unsatisfactory for small bloggers. They have to have time to be consulted, not really having a professional trade body nor [a] collective voice.' The basis on which bloggers were invited to attend was also far from transparent. Sunny Hundal, who runs the Liberal Conspiracy blog, tweeted: 'I heard about it via another blogger who was contacted by DCMS.'

In an attempt to clarify things, DCMS released a flow chart headed 'Are you a relevant publisher?'. Websites that post mainly news-related content, are run as a business,

have more than one contributor and have an editor will be covered – unless they're blogs. But no definition of 'blog' is provided, with culture minister Maria Miller adopting a 'we'll know it when we see it' approach.

Even blogs that don't focus mainly on news will be in if they employ more than ten people or have an annual turnover of more than £10m. DCMS confirmed to MacUser that although the content specifications apply to the individual publication, the turnover and employee criteria apply to the company that owns it, as a whole. But magazines whose publishers exceed these thresholds, like MacUser, still aren't included if they're 'special interest titles'.

The courts could end up deciding whether or not a site is a blog at the point when it's sued, establishing after the fact whether it can be slapped with exemplary damages if it loses. DCMS said exempt publications could still choose to join, which might make sense if they wanted to use the arbitration scheme to reduce the risk of being sued for libel.

But who's going to want to join a scheme that's been rejected by the very newspapers it was set up to regulate in the first place? ■

**The basis on which DCMS and Hacked Off invited bloggers for consultation was far from transparent**

IMAGE DCMS



# Adobe shows its hand in Las Vegas

**AHEAD OF CREATIVE Suite 7**, Adobe revealed significant updates to its video products and officially launched its Adobe Anywhere for Video collaboration platform in time for the broadcast industry's NAB Show in Las Vegas.

At a preview event in London, Niels Stevens, Adobe UK's business development manager for CS video, demonstrated features of the upcoming tools. Adobe Premiere Pro benefits from streamlined editing, better media relinking and enhanced audio. There's greater support for multi-camera sequences, allowing camera rushes to be synced based on their audio content, and the Lumetri Deep Color Engine is now included for grading directly within Premiere Pro.

There's a new Live 3D Pipeline for After Effects in conjunction with Maxon, which sees a Lite version of its established 3D animation app Cinema 4D bundled with the Adobe package. '55% of our After Effects users working with 3D were using Cinema 4D,' said Stevens. 'It's now completely integrated. You can create live 3D rigs and tie them to a comp in After Effects using the 3D Camera Tracker, then have the objects marry up together.'

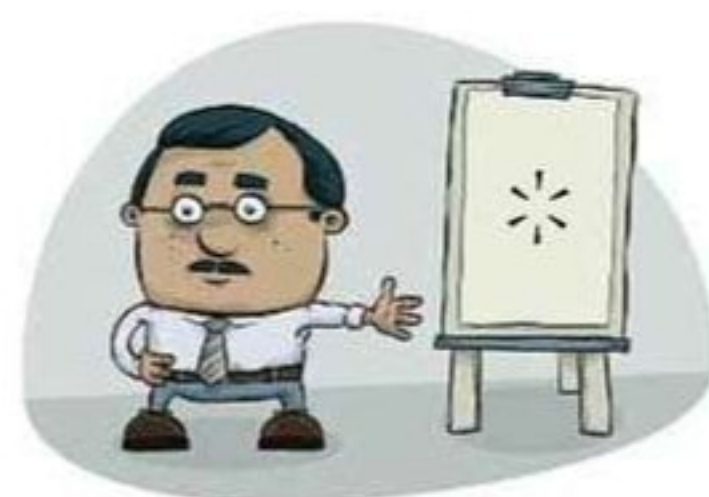
**AFTER EFFECTS FOOTAGE** fixers such as Warp Stabiliser and the rotoscoping tools are also refined. Along with a user interface tweak, finishing tool SpeedGrade gains a new AutoColorMatch feature, designed to match clips from different cameras with varying lighting conditions.

Ingest and logging utility Prelude is now 64-bit. It gets a boost to its metadata workflow and will provide full native Avid DNxHD support. Editing is also claimed to be faster, with new integrated Adobe Story panels giving Prelude and Premiere Pro users access to Story scripts as well as the ability to match a script to clips using speech-to-text analysis.

Audition, the audio editing app that was reintroduced to the Mac in CS5.5, also becomes 64-bit. New features include Sound Remover, which allows users to paint out patterns of noise interference in the Spectral View, and a new loudness compliance tool.

The updated apps are not yet publicly available, but Adobe is offering a special offer aimed at video professionals to join Adobe Creative Cloud for £27.34 (incl VAT) a month for their first year, 40% off the regular price of an annual membership. This includes access to the full set of Creative Suite apps for as long as the user subscribes.

**ADOBE ANYWHERE IS** a new service that allows remote users of Premiere Pro, After Effects and Prelude to simultaneously access and work directly with media stored on a central server, rather than through proxies. According to Stevens, it will let users such as freelance video editors collaborate virtually from any location where there's standard network connectivity. The system, aimed at high-end users, is due to be available through systems integrators from May. ▣



## Punt of the Month

DESPITE WALL STREET'S downer on him, Tim Cook has been a huge asset to Apple for longer than most people remember, and without him many of the products we love would never have materialised. But please, for the sake of the Apple rumour mill, could we have a few more? If we really have to wait another five or six months for the next big thing, it's going to be hard to find any speculation that's anything other than, well, rubbish.

For now, we're stuck with the likes of this from Apple Insider (appleinsider.com): 'Images purporting to show off a camera component and another piece of a supposed "iPhone 5S" have hit the internet, fanning the rumors that Apple's follow-up to the iPhone 5 is on deck.' Is that even English?

'One of the components featured in the supposed leak is what appears to be a front-facing camera, similar in appearance to the one built in to the iPhone 5.' Yep, that's where we're at. Blurry photos of pieces of plastic suggesting features the iPhone has had for years.

MacRumors (macrumors.com) claimed, in a report only slightly more credible, that 'issues with color coatings for the fingerprint sensor' – ohai fingerprint sensor! – 'said to be included on the iPhone 5S are likely to push back [its] launch from a June/July timeframe to perhaps September or later.' Well, at least the last bit's right.





# Ban spy drones now, says man who already photographed your house

GOOGLE CHAIRMAN ERIC Schmidt has warned that inexpensive miniature drone aircraft should be banned by an international treaty before they start being bought by private individuals.

Speaking to the Guardian, Schmidt, an adviser to US president Barack Obama, said: 'How would you feel if your neighbour went over and bought a commercial observation drone that they can launch from their back yard? It just flies over your house all day. How would you feel about it?'

Schmidt acknowledged that drones and other robotic weaponry were inevitably becoming a more significant part of modern warfare, but said he 'would prefer to not spread and democratise the ability to fight war to every single human being.'

While this sounds very sensible, the Google boss's concerns about spy drones may come as a surprise to those who've followed the criticism of the company by authorities and campaigners around the

world over its apparent insouciance regarding its users' privacy. Responding to a question on that subject, Schmidt claimed Google was 'super-sensitive' about privacy and had voluntarily cancelled projects that were likely to infringe it.

One such project, he said, was a facial recognition tool Google had developed. Apparently unaware that facial recognition might threaten privacy, nor that its implementation would breach European law, until very late in its development, the company eventually cancelled it. 'Facial recognition, completely unmonitored, can be used for

**'How would you feel if your neighbour had an observation drone that flew over your house all day?'**

very bad things,' admitted Schmidt. 'It can be used for stalking, for example. You know, it's just we don't want to be part of that.'

In 2010, Schmidt expressed Google's attitude to privacy like this: 'There is what I call the creepy line. The Google policy on a lot of things is to get right up to the creepy line and not cross it.' Many campaigners think crossing it is exactly what the company is doing with the constant large-scale data gathering that enables it to sell users to relevant advertisers and with projects like Google Glass. One activist, Scot Cleland, wrote: 'I predict many will think Google Glass crosses the creepy line when they see how powerful and convenient a spying tool it can be if worn by a creep.'

On 22 April, a German court fined Google €145,000 (about £122,000) for gathering and storing emails, photos, passwords and chat from wifi networks using its Street View cars between 2008 and 2010. Google has said the data collection was 'a mistake'. ■



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#### ← Early doors

Paris Brown was 14 when she posted remarks on social networks that have now resulted in her losing a job.

The EU wants users to have more control over data preserved online

**ANALYSIS** The right to be forgotten

# Every day of your life is visible forever online. Can you live with that?

PARIS BROWN MUST rue the day she set up her Twitter account. Had her 14-year-old self known she would, in a few short years, be appointed to the advisory role of youth police commissioner, she might well have avoided social networking altogether. She didn't, of course, and like many adolescents growing up in this most public of ages, she was later to discover that things said as casually and thoughtlessly as they would be in a pub or shopping mall are likely to remain with her for the rest of her life.

Whatever your views of the content of Brown's now much-publicised tweets (bit.ly/Y8Sp4d), it's discouraging that the words of the child Paris should have had such a devastating impact on the fledgling career of the young adult. In stepping down, after her earlier social media activity was dug up by a tabloid newspaper, from the role to which she was appointed at 16 by Kent's incoming police and crime commissioner, Brown was deprived of a start in life and the young people of her region of someone who'd been selected to advocate for them.

Brown is not alone. Stories abound of people who lost out on a job because their

prospective employer took a look at their Facebook wall. It needn't even be the user themselves doing the posting. If a friend posts pictures of a long-forgotten night out on Facebook and tags you in them, you're there for everyone to see, labelled in whatever embarrassing situation is depicted. Users can untag themselves from others' photos, but only if aware that they exist in the first place; if you don't use Facebook often, you might not know you're being talked about. And there's no way to prevent others tagging you in the first place.

One solution is to prohibit employers from taking social media history into account, just as they're prohibited from discriminating against women who plan to have children, for example. Some US states are moving towards this, but it wouldn't help with public image issues such as Brown's.

**THESE AND OTHER** privacy issues on social networks have led many, Paris Brown now included, to delete their accounts. But erasing your digital past isn't as simple as that. The tweets or posts themselves may not be visible, but generally they still exist on the

servers of the service provider. Getting them removed is difficult. Very difficult.

Proposed EU legislation seeks to make it easier. A section of the EU General Data Protection legislation known as the 'right to be forgotten' aims to allow social network users to delete not just their account but all the data associated with it. It's a response to complaints from social network users about their lack of control over 'their' data. As reported by the Guardian, 'its current form provides for punitive fines for companies that refuse to comply with requests to erase customers' personal details'.

Vivian Reding, the EU Justice Commissioner, explains: 'At present a citizen can request deletion only if [data stored on them by organisations and covered by data pro-

**'At present a citizen can request deletion only if data held is incorrect. We want to strengthen this'**



tection laws] is incomplete or incorrect. We want to extend this right to make it stronger in this internet world. The burden of proof shall be on the companies. They will have to show that data is needed.'

There's another reason that new legislation is necessary, said the EU. 'This piece of legislation... eliminates 27 conflicting rules [one for each EU state] and replaces them with... a mechanism for the whole continent. This means saving €2.3bn (£1.9bn) a year,' claimed Reding.

But the practicalities are another matter. The UK Government has already said it has no interest in signing up. One of the problems cited by the Ministry of Justice is that the legislation 'raises unrealistic and unfair expectations of the proposals by allowing [users] to believe that they have been "forgotten" when in fact the act of "forgetting" is not yet technically possible.' The Information Commissioner's Office (ICO) agrees: 'We are concerned that this right, as billed, could mislead individuals as to the degree of protection the law can offer them.'

The UK government would prefer legislation to take the form of an EU directive, which would give it more flexibility in implementation. Reding is dismissive, describing dealing with Justice Secretary Chris Grayling as 'rather like Kafka'. 'Britain is meant to oppose red tape; here Britain wants a supplementary layer of red tape.'

Despite her frustration, the objections are valid. While legislation could obligate the likes of Twitter and Facebook to delete private information, it's impossible to identify all the third parties who may have already copied and re-published it. Without the ability to erase every trace of a given piece of data from the internet, it will never truly be 'forgotten'. And there are obvious reasons why such an ability, in any hands, would be both undesirable and impossible.

**BRITAIN ISN'T THE** only country against the EU proposals. According to the Irish Times, nine countries want the legislation 'watered down' because they're concerned about the burden it would place on businesses. Ireland currently holds the EU presidency and has described passing the legislation as a key priority – but the country is also home to the European HQs of Google and Facebook.

Facebook has said that complying with the legislation in its current form would take up resources and wouldn't even work. It would surely have an even worse effect on any new social network trying to launch in competition with such established giants.

It does need to be simpler for users to remove categories of data, particularly when companies like Raytheon are mining social networks to compile information on citizens. But while the internet exists we can probably forget the right to be forgotten. ■

**EXPERT EYE** WebKit

## Fear of forking ignores the fact that two heads are better

THE WAILING AND gnashing of teeth over Google's decision to split from WebKit, the open source web browser engine co-created and adopted by Apple, and create its own rendering engine, Blink, might have died off a little by the time you read this. But for some web-watchers, there'll be still be a great deal of suspicion that the move will mean a worse, more fragmented web and yet more testing for developers.

In reality, the implications of Blink are likely to be minimal in the short term, and may work out pretty positive in the long term. In fact, we could rapidly see both Blink and WebKit driving forward what can be done with the web in a way that helps developers and users alike.

It's worth starting with a bit of background, because a lot of the comments about Blink and WebKit are based on a muddle over what WebKit actually really does. WebKit – and Blink – are really pretty low-level services, which parse the HTML on a web page and lay it out. Rendering text, graphics, network access, hardware acceleration – all those are handled either by other bits of the browser app you're using, or by whatever operating system you're running. That's why when you look at a page in two WebKit-based browsers, what you see is rarely identical.

What's more, although different WebKit-based browsers will all use some of the same core code, what each browser maker does with that code when porting it to their platform can be different. Google Chrome's port includes features from WebKit that differ from Apple's version, and vice versa. Even ports used by the same company can be different, which is how the stock browser on Android came to use a different version of WebKit to Chrome.

So the argument that Blink's split from WebKit will lead to a more fragmented web is based on a false assumption: that the web isn't fragmented already. It is, developers know this, and they already build and test for it. Web designers – at least the good ones – already test sites with Apple's Safari and Google's Chrome separately, even though both use WebKit. You don't just assume that just because a site looks great on Safari, it will look great on Chrome. And that's leaving aside the issue of testing on the mobile versions of Safari and Chrome, which, despite using WebKit, don't render pages exactly the same way as their desktop stablemates.

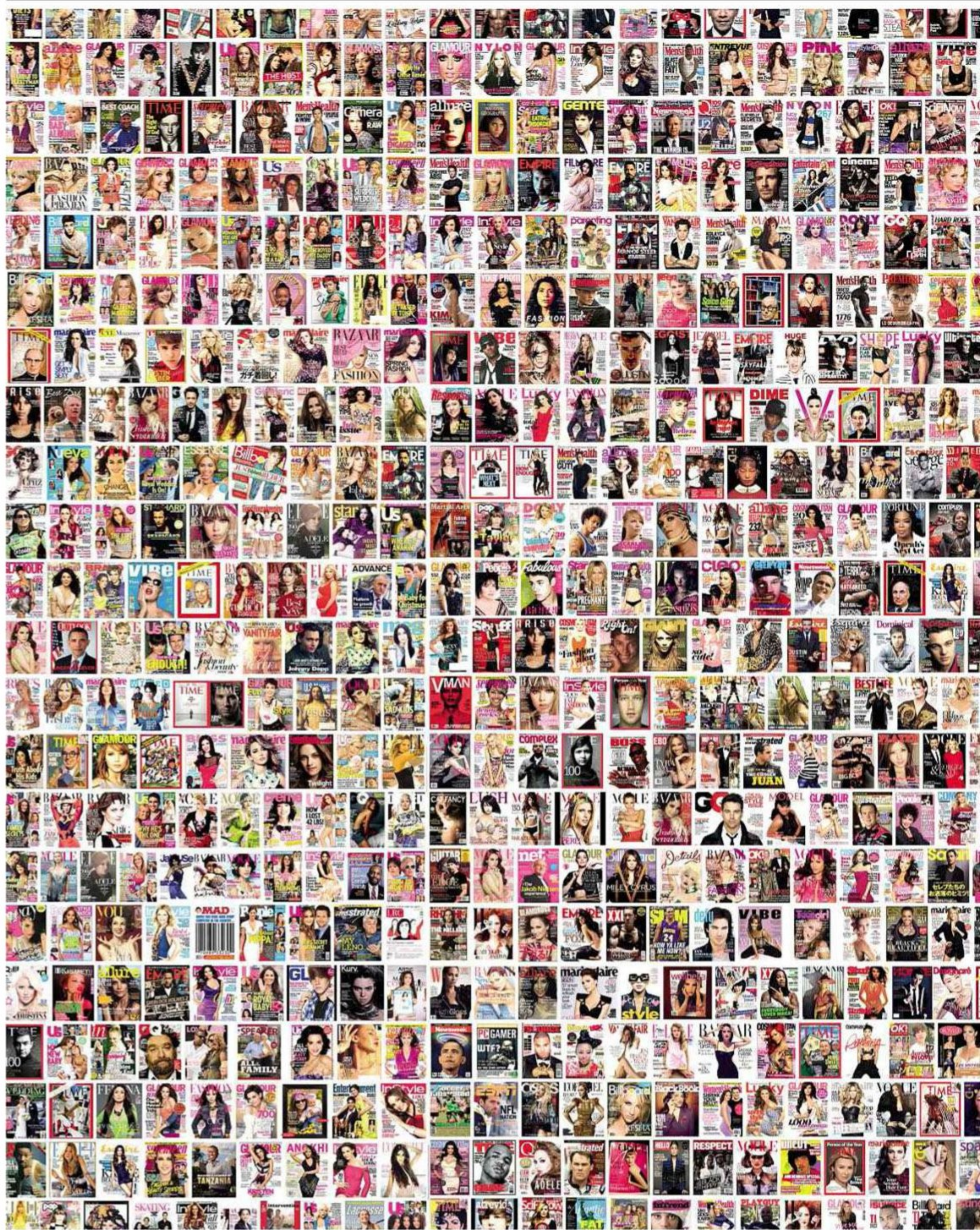
The assumption that the departure of Google from WebKit somehow means WebKit is doomed also does Apple's engineers a profound disservice. In fact, it's an opportunity for Apple to show its mettle and raise its game – particularly with regard to security, where Google has probably contributed most to WebKit in the past few years.

It means competition, too. Two top-notch teams of browser engineers are going to be competing against each other to build a better rendering engine, while also being able to borrow ideas from each other when required, since both projects remain open source. Apple can learn from Google; Google can learn from Apple. And the competition between the two of them can push on the state and rate of browser development. ■

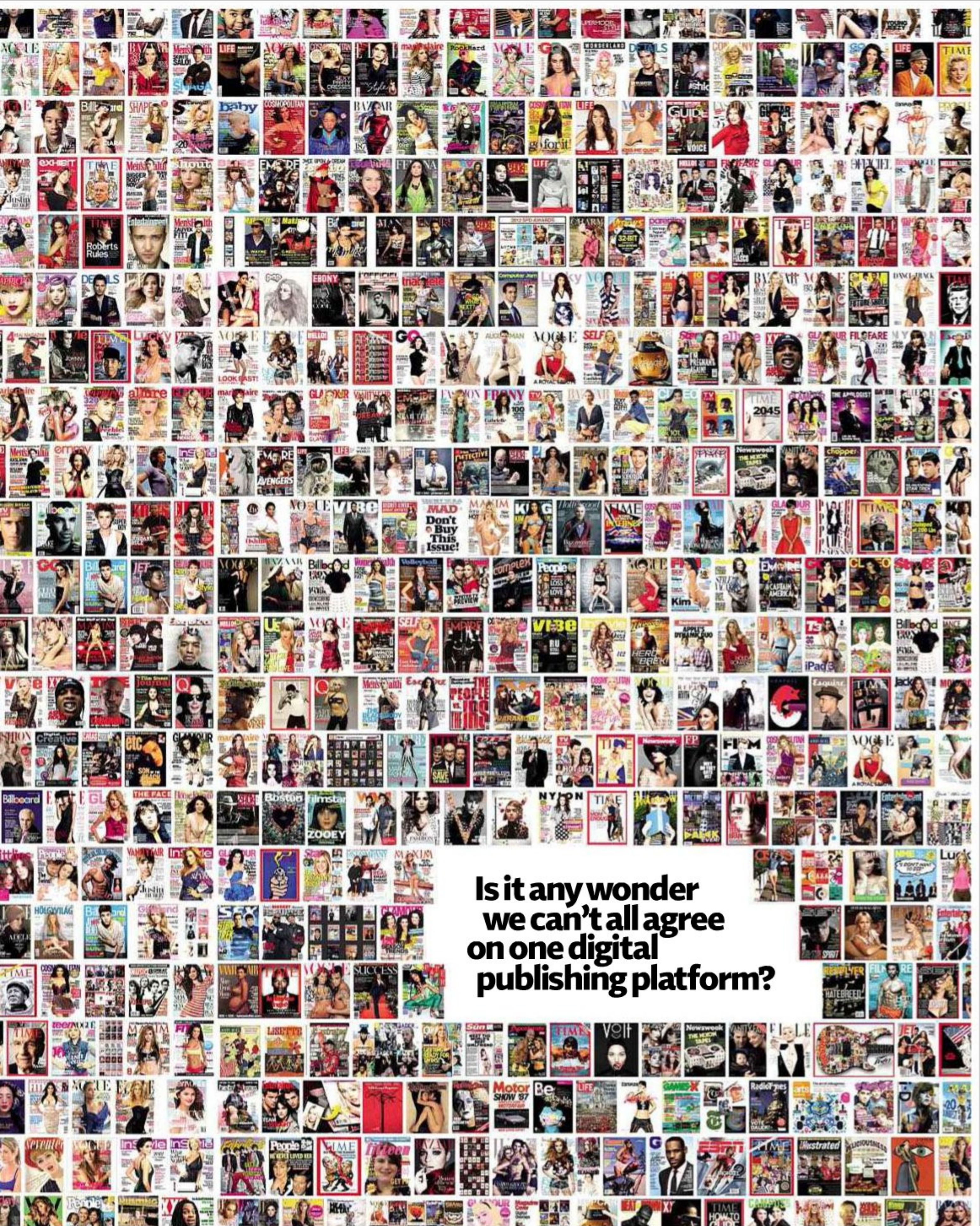


**IAN BETTERIDGE** is a content strategist and former editor of MacUser.









**Is it any wonder  
we can't all agree  
on one digital  
publishing platform?**



DIGITAL PUBLISHING TODAY means creating and delivering products that consist of page-like layouts, combining text, graphics and multimedia elements, as software for iPads and similar devices. It's often seen as something specific to the magazine industry, but it's really a much bigger seismic shift than that. Books, brochures, reports, newspapers, portfolios – in fact, anything and everything that's published in print today – can all shift to some kind of digital form as well. The problem is, nobody can really settle on just how it should be done, how much it should cost, and where that money should come from.

We're three years into the iPad age, and while only technophobes would claim a revolution isn't happening, nobody is yet really sure where we're all going to go from here. In this article, we'll do what we can right now, which is to profile most of the leading solutions currently available to turn pages created on your Mac, one way or another, into publications delivered on users' devices.

Categorising the different approaches to digital publishing is tough, but there are essentially three broad groups of products:

**1. Solutions that repurpose existing print content for on-screen display.** Often called 'replica' publishing, although it's not always as simple as that, or 'PDF shovelware', if you're not a fan of this approach and are gratuitously rude. These services typically present a web portal via which you build your digital product from existing assets.

**2. Solutions that use existing print publishing tools to create digital publications.** These do the majority of the production work locally, on the designer's Mac. You can think of them as hybrid, since they use print layout methods to design digital output.

**3. New production platforms that don't use existing layout tools or PDF assets.** These are essentially digital-only publishing tools, and while the lack of a traditional layout environment anywhere in the workflow will disconcert designers it's worth giving them some attention.

For fairly obvious reasons, the hybrid DTP-based production approach has been the most popular to date. Within it, two sub-categories are emerging: tools that render Adobe PDF or similar page description output as page images, precisely reproducing print layouts but producing very large issue files and requiring technical workarounds to achieve features like user searching within the text, because there's no live content; and

those that generate HTML5 output from the DTP layouts instead, accepting some compromises, especially in typography, in return for benefits like direct text searches and smaller issue download sizes.

**ONE OF THE** most overlooked aspects of publishing for tablets is how fundamentally it can affect the editorial process and staff. In print, the focus of editorial and design teams is on organising and presenting text and images within a fixed page, a complex but finite skill set. In tablet publications, you also have the option of using video, animation, location awareness, dynamic content remixing, non-linear navigation and more.

A big question is whether to dive in and deal with all these new elements yourself (the jack-of-all-trades approach) or rope in specialists. It's a question only you can answer, but even if you step back from dealing with every technical aspect, you still need to learn enough to make the best choices. Editorial, design and publisher responsibilities are changing radically; you'll need to stay on top of things or risk falling behind.

The structure of digital publications is also less constrained. Every magazine has a fixed format and a budgeted pagination

(divisible by eight!) which will only change in response to extrinsic factors such as ad revenue. A digital publication can have any number of pages with no direct cost or production implications, and features like scrolling can change how much content fits on each page.

Pages can also have two orientations. With the ability to rotate the iPad comes the question of what to do when the reader does so, and this dual orientation question is causing a lot of angst. 'I don't want to design each page twice' is a common complaint, and after a honeymoon period when everyone assumed both aspects were obligatory, many magazines are now made to work in just one orientation.

But which one is best? A print-rooted designer would probably lean towards vertical, but informal reports say people use their iPad in landscape mode a good 70% of the time – and our own experience puts that figure rather higher.

Picking a single orientation seems a bit of a cop-out. Doing both ways up doesn't have to mean duplication. Why does the alternative orientation have to show the same content rearranged? You could select media for the orientations that best suit it: for example, large screeds of text in vertical pages and video in horizontal ones. But then how do readers know there's more content to be had when the device is turned? Your design should be able to tell them. Do readers actually want to keep re-orienting their iPads? That's harder to answer.

## Replica or native?

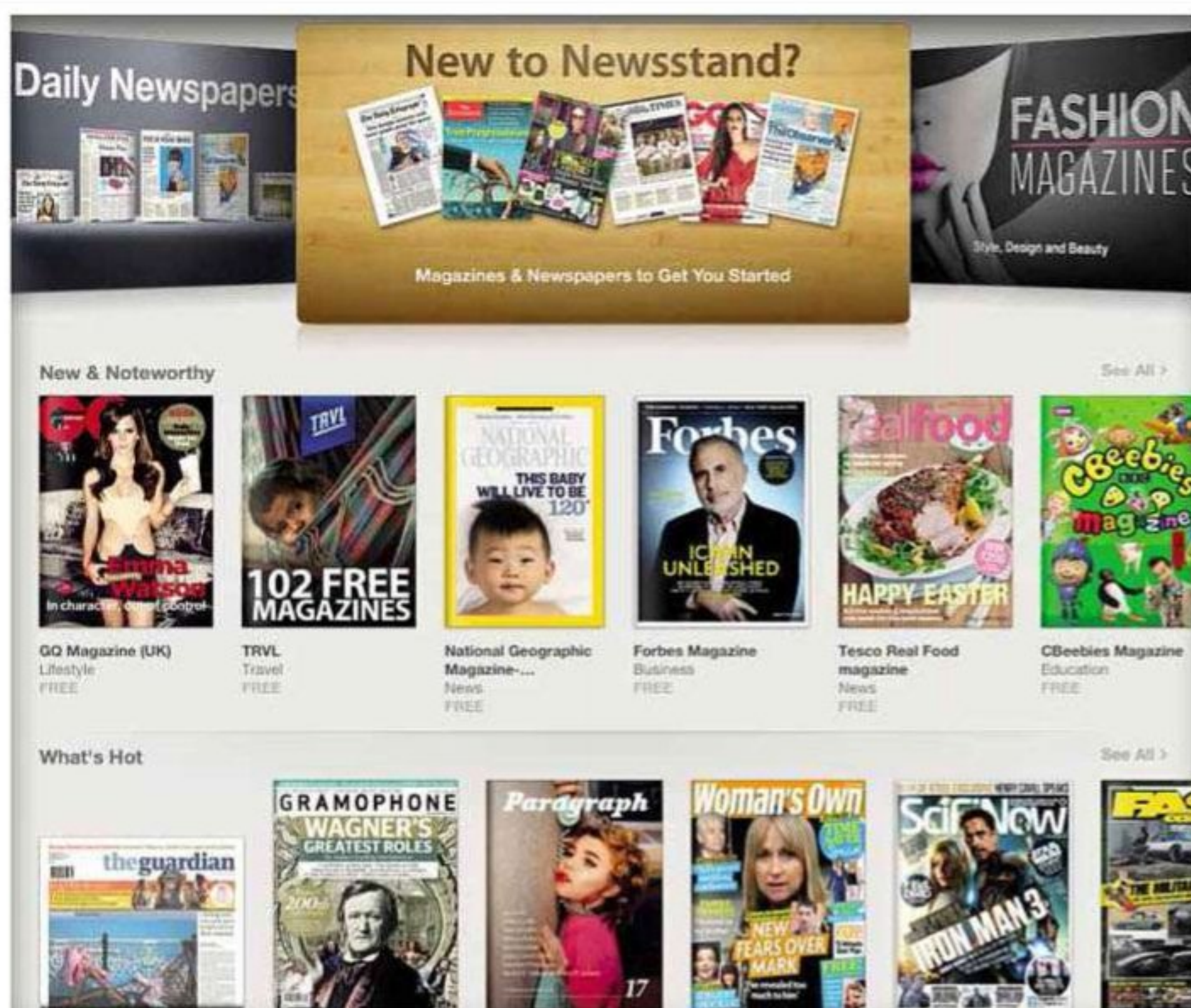
ALL THIS THINKING about how to make the most of digital will go nowhere if you confine yourself to converting print layouts into replica editions. Digital replicas could be seen as the publishing equivalent of the horseless carriage – blindly preserving a paradigm through a leap of technology that allows completely new models. It's tempting to wonder if the big changes won't really happen until we get more new blood into publishing and start with truly fresh eyes.

But many of us old hands are quite ready to imagine new kinds of publishing. The biggest problem in many cases is projecting enough revenue to fund the manpower and resources that are required to create original digital publications from scratch with new kinds of content. Scraping DTP files into page-turn app templates isn't much like progress, but it's highly cost-effective – as long as readers will continue to buy.

Little wonder that a great divide in digital publishing today lies between replica and native approaches. The former are based on repurposing print magazine processes and assets, turning existing layouts into

**PUBLISHING FOR  
TABLETS CAN  
FUNDAMENTALLY  
AFFECT THE EDITORIAL  
PROCESS**





something that can be browsed on screen. To make the experience more engaging, enhancement overlays can be added to introduce features such as videos, slideshows and navigation hotspots.

Native digital magazines are those created specifically for the digital platform. They'll be designed for the device screen size, and typically a range of dynamic elements will be integral to the layouts. Unlike print layouts pushed into digital form, their text will be designed to be readable on screen without the user having to pinch-zoom into the page, a commonly used facility in replica magazines but a user experience that gets weirder the more you think about it.

The boundary between these two concepts can get very blurred; in a sense, there are straight replicas produced by throwing a print magazine's PDFs into an automated system at one end, and fully bespoke magazines with their own unique digital platform at the other, and every shade in between. The picture isn't made any less confusing for newcomers by the myriad ways companies in this still emerging market present their tools and services.

Further muddying the waters, Adobe's PDF format, adopted in a vast range of products and services and the industry standard for delivering pages to press, is popular both among digital replica services and as the underlying document structure for many digital-native publishing processes. Two major tools have now bucked this trend, pursuing more dynamic HTML5-based output instead. App Studio, owned by Quark, produces HTML5 from InDesign or

## REPLICA MAGS REPRODUCE PRINT LAYOUTS; NATIVE MAGS ARE MADE JUST FOR DIGITAL

QuarkXPress layouts. The code is generated by the back-end App Studio cloud services and output as issues that feed into a waiting app; iOS, Android and Kindle devices are supported, depending on what the publisher pays for.

Padify is a fully online tool that takes existing DTP content and turns it into HTML5, with a 'create once, publish everywhere' approach. It's likely to be a good fit for someone interested in republishing print content in a fully native digital format, but while it's flexible, it's still more template-driven than some solutions.

**IF YOUR BACKGROUND** is in print publishing, what technology is used under the hood to build your publication may not sound like a creative issue. Should you even have to care? Well, as with web design, technical choices tend to have direct consequences for how the end product looks and feels to the user, and what they can and can't get out of it.

Each approach has its advantages and disadvantages. The 'rendered page image' methods will show the precise typographic appearance of layouts created using all the established features of desktop publishing apps. That works well for remote-based

services where design and production staff upload their finished pages to the system and add enhancements, if required, using a web portal – an easy workflow to bolt on to traditional publishing models and tools.

One downside is the lack of live text in the product, which gets in the way of searching and accessibility and prevents content re-flowing. There are workarounds – uploading plain text as an enhancement, so readers can opt to display it like a book, is a feature of some tools – but it's not ideal. Issue downloads can be large, into the hundreds of megabytes, and you get only limited opportunities to experiment with new ways to structure and present content, since you're tied to a page layout paradigm.

HTML-based publishing normally includes live, accessible text as a matter of course, and will be easier to integrate with different publishing systems – in theory, at least. Delivered file sizes are generally much smaller (though savings will be less if your pages contain a lot of images and video), and there should be more scope for integration and automation between tools and processes to bring an end product together, should you have the coding skills available. The downsides include limited typographic control (with current tools, you can't even take basics like manual kerning for granted) and production process wrinkles that print professionals will need to learn to anticipate.

When the move to iPad publishing began, the general feeling was that both readers and publishers would be best served by tools that were dedicated first and foremost to delivering pixel-perfect pages; anything that tried to get clever at the expense of translating visual design seamlessly to the screen would just be a distraction. Since then, we've seen the visual quality of web pages, based on code rather than wysiwyg design, increase markedly along with users' expectations of dynamic features such as searching and sharing.

The balance is now such that we feel the long-term future of digital publishing must lie in HTML5, even if many publishing creatives are still determined never to see a line of code. The typographic weaknesses are still frustrating at the moment, but technically addressable (developers are looking to embedded web fonts and code libraries such as kerning.js and lettering.js for ways forward, among other possibilities, and the solutions they find will become available to designers as feature improvements in the tools they're offered by vendors). More important is the fact that constructing digital publications using dynamic and interoperable technologies opens all the doors to rethinking our whole concept of what magazines and newspapers are or can be in the age of the mobile screen. This is where we stop making horseless carriages. →



## Advertising

THE MAJORITY OF most magazines' revenue has traditionally come from advertising rather than the cover price paid by the reader. Since the advertising market started to go downhill in the late 1990s, this has been rebalanced to a degree by higher cover prices, especially outside the US. But the tendency of the App Store – the only place iPad users can buy magazine apps – to drive down prices means digital editions won't make money unless they provide a vehicle for advertising.

Working with advertisers is something established publishers will be familiar with, but traditionally their work is complete once the artwork is received. Things are rather different in digital publishing. While replica editions may include the same ads that appeared in print, they won't be as effective on screen. It's unlikely readers will zoom in to see tiny text in an ad, for example, so the client would be well advised to supply alternative artwork. At a bare minimum, the ad will need to link to the client's website when tapped, something you'll be able to set up in your digital publishing portal. When you start adding value to digital ads is when clients might be persuaded that they're worth paying extra for.

It's recognised that ads in digital mags can be more intrusive than in print, partly just because the reader may have to think twice about how to turn the page. In some ways, of course, that may be a good thing for the advertiser, and there are various methods of inserting ads 'in the cracks' so readers encounter them in more ways than as just another page in a front-to-back sequence. But you'll also need to think about making ads more engaging and less annoying to get positive results.

**IF YOUR PUBLISHING** process is based on HTML5, it's relatively straightforward to build in fully interactive, responsive third-party ads made the same way. Other formats can pose challenges, but HTML panels, web views or iframes – different names for the same concept – can be used to much the same effect within more conventional page-based digital publishing platforms.

While many advertisers and their agencies will already be set up to produce interactive content, it's something publishers should also be offering as a service. After all, who better to build something to fit well in a magazine than the publisher itself? Creative generally pays more in advertising than editorial, but that comes with higher expectations, so expecting overburdened staff to switch focus from editorial design and production to knock up an ad whenever required may not be a recipe for success.

**← Numbers game**  
The App Store gives you a fixed choice of price points. Apple takes 30% of what your customer pays, and your publishing platform will charge fees on top of this, whether as an additional percentage, in some other charging structure, or both

	U.S. - US \$		Canada - CAD \$		Europe - Euro €		U.K. - GBP £		Japan - Yen ¥	
Tier	Customer Price	Net Revenue	Customer Price	Net Revenue	Customer Price	Net Revenue	Customer Price	Net Revenue	Customer Price	Net Revenue
Tier 1	0.99	\$0.64	0.99	\$1.40	0.79	€0.64	0.69	£0.45	¥85	¥64
Tier 2	1.99	\$1.40	1.99	\$2.80	1.59	€1.27	1.49	£0.95	¥170	¥128
Tier 3	2.99	\$2.24	2.99	\$4.20	2.39	€1.91	1.99	£1.27	¥250	¥192
Tier 4	3.99	\$3.08	3.99	\$5.60	2.99	€2.55	2.49	£1.62	¥330	¥256
Tier 5	4.99	\$3.92	4.99	\$7.00	3.99	€3.19	2.99	£2.00	¥410	¥320
Tier 6	5.99	\$4.76	5.99	\$8.40	4.99	€3.83	3.99	£2.35	¥490	¥384
Tier 7	6.99	\$5.60	6.99	\$9.80	5.49	€4.39	4.99	£2.69	¥570	¥448
Tier 8	7.99	\$6.44	7.99	\$11.20	5.99	€4.95	5.49	£3.04	¥650	¥512
Tier 9	8.99	\$7.28	8.99	\$12.60	6.99	€5.59	5.99	£3.39	¥730	¥576
Tier 10	9.99	\$8.12	9.99	\$14.00	7.99	€6.23	6.99	£3.74	¥810	¥640
Tier 11	10.99	\$8.96	10.99	\$15.40	8.99	€6.87	7.49	£4.09	¥890	¥704
Tier 12	11.99	\$9.80	11.99	\$16.80	9.99	€7.51	7.99	£4.43	¥970	¥768
Tier 13	12.99	\$10.64	12.99	\$18.20	10.49	€8.07	8.99	£4.78	¥1050	¥832
Tier 14	13.99	\$11.48	13.99	\$19.60	10.99	€8.63	9.99	£5.13	¥1130	¥896
Tier 15	14.99	\$12.32	14.99	\$21.00	11.99	€9.27	10.49	£5.48	¥1210	¥960
Tier 16	15.99	\$13.16	15.99	\$22.40	12.99	€9.91	10.99	£5.83	¥1290	¥1024
Tier 17	16.99	\$14.00	16.99	\$23.80	13.99	€10.55	11.99	£6.18	¥1370	¥1088
Tier 18	17.99	\$14.84	17.99	\$25.20	14.49	€11.11	12.99	£6.53	¥1450	¥1152
Tier 19	18.99	\$15.68	18.99	\$26.60	14.99	€11.67	13.49	£6.88	¥1530	¥1216

## Costs and pricing

Evaluating the different iPad publishing methods available is a complex business, and the variation in pricing schemes means you can rarely compare like with like. Do you go for revenue share or a download tax? Pay for each interactive feature you add to your pages? Per device platform you want to reach? According to the number of pages you create or the overall data size of the issue? Then there are the variables of negotiating power; with some publishing methods the cost can depend on things such as number of titles you want to produce, which can put independents at a disadvantage.

Most services will limit the number of copies of each publication you can deliver to your readers before having to pay more. Many do this literally by counting the downloads, but Mag+ gives a bandwidth-based limit. It works out roughly the same, but has the interesting effect of encouraging producers to keep issue sizes under control. This, frankly, is a good thing for readers, even if it does lead to more videos being streamed over the air rather than being embedded in the issue.

**REVENUE SHARE  
OR DOWNLOAD  
TAX? WILL YOU  
PAY PER FEATURE?  
PER DEVICE TYPE?**

The costs shown for the various solutions we've covered in this guide, where available, are based on straight fees for producing and managing a single digital magazine. Our baseline was a hypothetical publication that comes out once a month and reaches an average of 1,000 readers (downloads). It's impossible to come up with one scenario that fits all, but we think this is realistic. A figure of 1,000 readers may seem low if you're used to looking at commercial print mag sales, but for this world it's quite normal – and in fact, as a median, it's arguably a little high. Retaining a digital readership at even that level isn't easy unless you flex your marketing muscles in some way.

As Patrick Knight, strategic development director of MagazineCloner (magazinecloner.com), told us: 'Unless you have a way of getting the app in front of the masses, and it sticking, it could turn into a labour of love.' But he agrees that success isn't necessarily determined by advertising dollars. 'A couple of mentions on the right blog or newsletter and it can quickly take off.'

**IT'S NOT ALL** doom and gloom. Digital magazine sales have plenty of room to grow; they're still not a big element of publishing industry turnover. According to a report on paidcontent.org, 289 US magazines sold a combined total of 7.9 million digital copies in the second half of 2012. Impressive, but that was just 2.4% of their total (print and digital) circulation. Looking at the UK, Men's Health is the biggest selling paid-for men's title here, according to the PPA, and in that July-December period last year it averaged



## APPLE STUFF IS GENERALLY USER-FRIENDLY. THE APP STORE SUBMISSION STAGE ISN'T

12,676 digital copies a month. That's good, but hardly a challenge to the monthly print circulation of 202,704.

On the other hand, Future's T3 magazine reported digital sales (11,158 per issue) accounting for almost a quarter of its total, reflecting the typical reader's interests. Take these figures with a pinch of salt, by the way, as a picture of the current market, because after the honeymoon period created by Apple's launch of Newsstand in 2011, many digital editions have shown poor renewal rates. In short, realism is important, especially if you're thinking about launching a brand new title.

We're not here to tell you how to market your work, but it's important to remember that the App Store is just a repository, not, except for a lucky few, a billboard. Although you may pick up a few readers searching Newsstand for your specialist subject, relying on new readers stumbling on your title won't get you very far. Make use of your web presence and work on SEO: Google is a much bigger pot of users than Newsstand. Look at email promotion (not spam) and use social networks to let people know you're around. Consider releasing free promo issues, and make subscription deals attractive to potential customers.

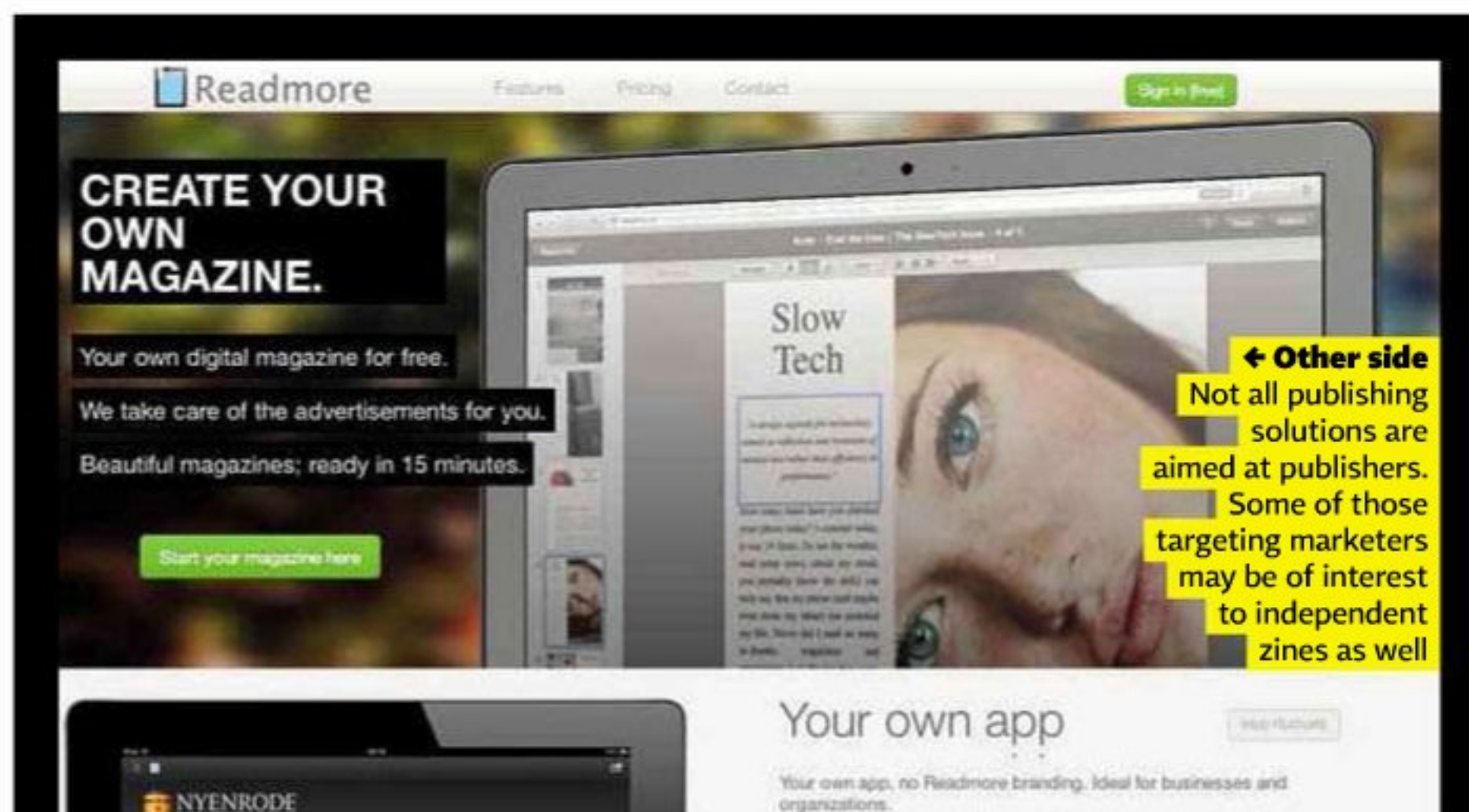
It's vital to understand the pricing model of your chosen digital publishing service, but it's just one part of the equation.

## The App Store

WHEN A PUBLISHER gets into the iPad game, some kind of learning curve is inevitable. New tricks take new skills. But you might not anticipate where one of the biggest challenges arises: right at the final stage of setting up your new magazine, when you submit your app to Apple.

We're used to thinking of things made by Apple as logical, intuitive and user-friendly, but in this case it's anything but. The developer account pages in general and the App Store submission process in particular are incredibly opaque. Anyone who's every tried it will agree: they were designed by programmers, for programmers – not for publishers or designers.

This is something every digital publisher needs to deal with, so it's worth checking how much help you'll get with it from your digital publishing service provider. →



## Alternative approaches

THERE ARE MANY MORE tablet publishing solutions and services, of varying kinds, beyond those we've covered in detail in the following pages. Some are enterprise-oriented to the point of needing bespoke programming to get started with them at all; at the other end of the scale, there are plenty of glorified PDF wrappers to choose from. There's more than a smattering of snake-oil hopefuls, too, trying to sell things that aren't properly thought-through, aren't sustainably priced, aren't well designed, or just plain aren't even any good. It's particularly important to watch out for 'magazine publishing' solutions that ignore the central requirements of periodical delivery and subscription management.

Here are some we've spotted that seem worth a closer look. ReadMore (readmo.re) is for those who want to get onto the iPad but don't have design software or even a budget. The online production portal is limited to text and picture layouts and gives you canned templates to work with, but it's unarguably quick and easy. Productions will be published into the ReadMore library app. Pay something instead of nothing and you get your own app, but it's still limited in layout options.

You may prefer Readz (readz.biz), which also starts at zero cost – if you only shift a handful of copies a month, at least – and allows more dynamic layered elements. The main thrust of this service is towards marketers rather than traditional publishers.

Tactilize (tactilize.com) bills itself as 'real-time iPad publishing', and it's a clever app- and web portal-driven

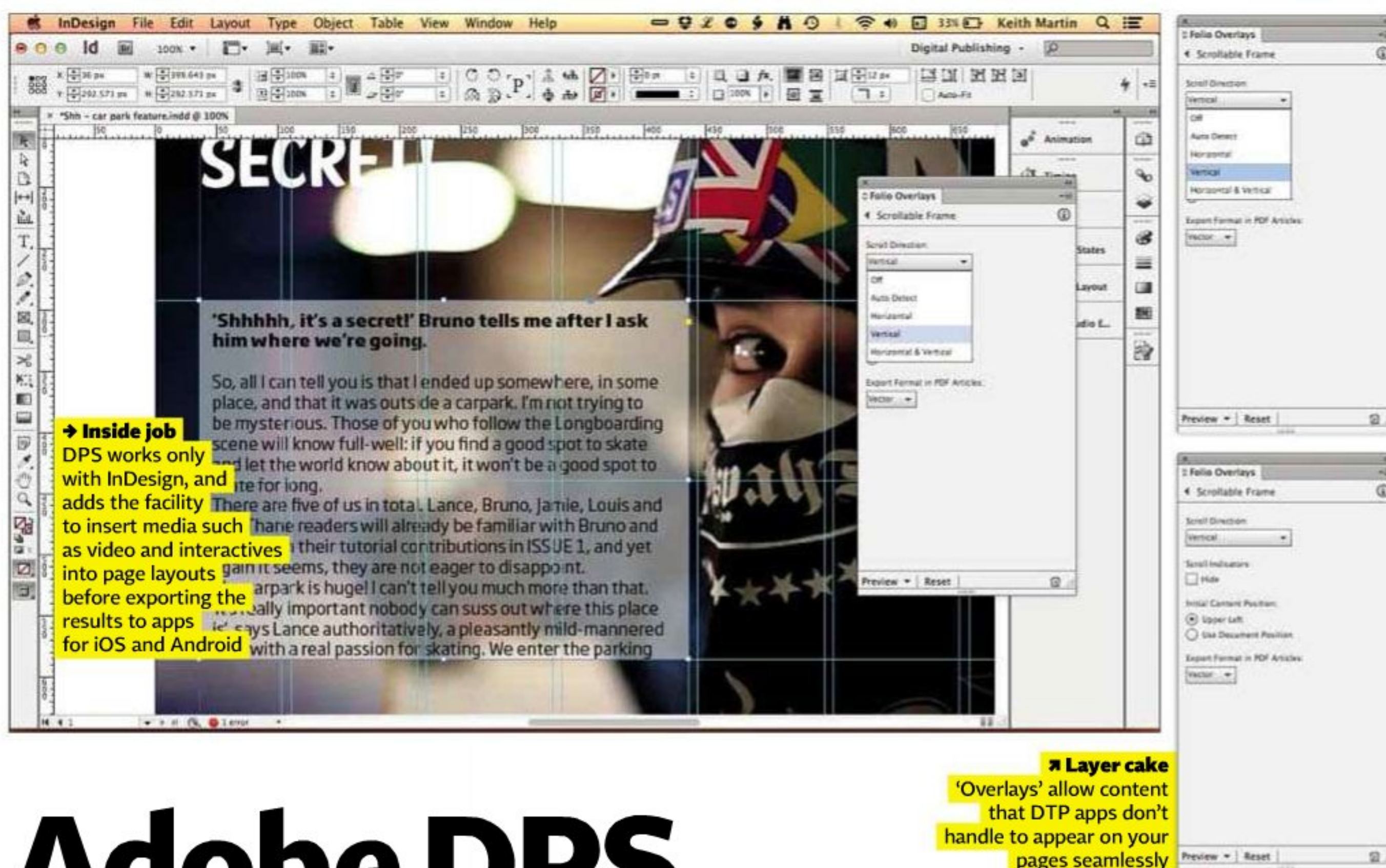
approach to creation and distribution. Layout controls are very limited, but it's a refreshingly different approach to publishing on the iPad – more of a shared environment where layout 'cards' are created and made available.

Twixl (twixlmedia.com) is more traditional, and targets those with a commercial interest in publishing. It uses InDesign's Book feature to build up layouts into a publication, offers a serious range of features including embedded or streamed video and HTML panel overlays, and comes with a price tag. Publishing single edition apps costs a little under €1,000 (about £850) for a year, and for multiple issues you're into €6,000 (£5,000)-plus.

PageSuite (pagesuite.com) is a strongly workflow-focused offering with established customers in the newspaper and magazine publishing industries. It takes PDFs from print workflows and creates distilled-out, screen-friendly versions in a page-turning format. There's a legacy emphasis on Flash-based production, but it also has the ability to create HTML5 content for mobile devices – albeit as an annual £495 bolt-on to its £1,995 Digital Edition package. You'll also need the Dynamic Apps bolt-on package (£2,950) to publish standalone device apps rather than web browser content.

With such very different options available, making the decision to take a punt on any one of them isn't easy, but the field is full of potential. As Ian Westwood, group managing director at Dennis Publishing, said recently: 'I've been in publishing for over 25 years and it's never been as exciting.'





# Adobe DPS

ADOBE'S DIGITAL PUBLISHING SUITE, or DPS for short, is probably the most widely known method of making native iPad publications. It comes as part of Creative Suite and is used within InDesign CS6 to create device-native interactive page layouts that are exported and published using Adobe's DPS online services.

Parts of the design process makes use of a few of InDesign's existing panels. The Buttons or Hyperlinks panels are put to work when making links to external URLs, and the Object States panel is used for slideshow creation. Other interaction and rich media production is dealt with using the Folio Overlays panel, either by adding abilities to a selected box or, in the case of audio and video, by placing the content on the page and modifying things from that point.

The Folio Builder panel is used to assemble a digital publication from different InDesign layouts. First a folio is set up. These are device-specific; iPad (horizontal and/or vertical orientation), iPhone, Kindle Fire, B&N Nook, or 'Custom', for different screen sizes. Once the folio is specified, articles are imported from open InDesign documents or saved content. The Adobe Content Viewer lets individual

pages be previewed on a Mac. To see the whole production you'll need to generate and test the folio, and to build the app itself and produce the finished issue you'll need to sign in to your Adobe Digital Publishing account and work in the portal.

Creating self-contained one-off publications is free if you have a Creative Cloud subscription, or £235 per publication if you don't (all prices here are ex VAT). Single Editions only work on iPad – you can't output them for Android or other platforms – but the ability to churn out unlimited numbers of one-off publications is a great incentive to subscribe to Creative Cloud, which gives you all Adobe's apps for £39 a month. If you want to publish periodicals, however, things get serious. There's an annual £3,384 'platform fee' which, for your first year only, includes 5,000 issue downloads, so that's

**ONE-OFF APPS  
ARE FREE WITH  
CREATIVE CLOUD  
BUT PERIODICALS  
START AT £3,384**

your minimum outlay for a low-circulation title; but our 1,000 copies per month (or 'folios' in DPS-speak) example would need a 'fulfillment bundle' on top. These are available for 10,000 or 25,000 pre-paid downloads. Together with the first year's included downloads, the smaller bundle will do us; add the 17p per folio for this and the annual total is £5,084, with output to Kindle Fire and other Android devices included. Subsequent years would need the bigger fulfillment bundle, which attracts a slightly better 13p per folio fee but brings the total cost per year to £6,634. Bundles expire after a year, so any unused downloads aren't carried over.

Adobe's DPS is impressively mature and capable, allows multiple people to work on different parts of an issue at once in separate documents, and creates proper device-native publications. But its periodical pricing is daunting. While large organisations with established magazines may (and do) take it in their stride, it will rule the system out for most small publishers and enthusiasts. Single Editions with Creative Cloud can be great for these users, since apps don't have to make money, but it's a shame the jump is so enormous to scale to periodical. →

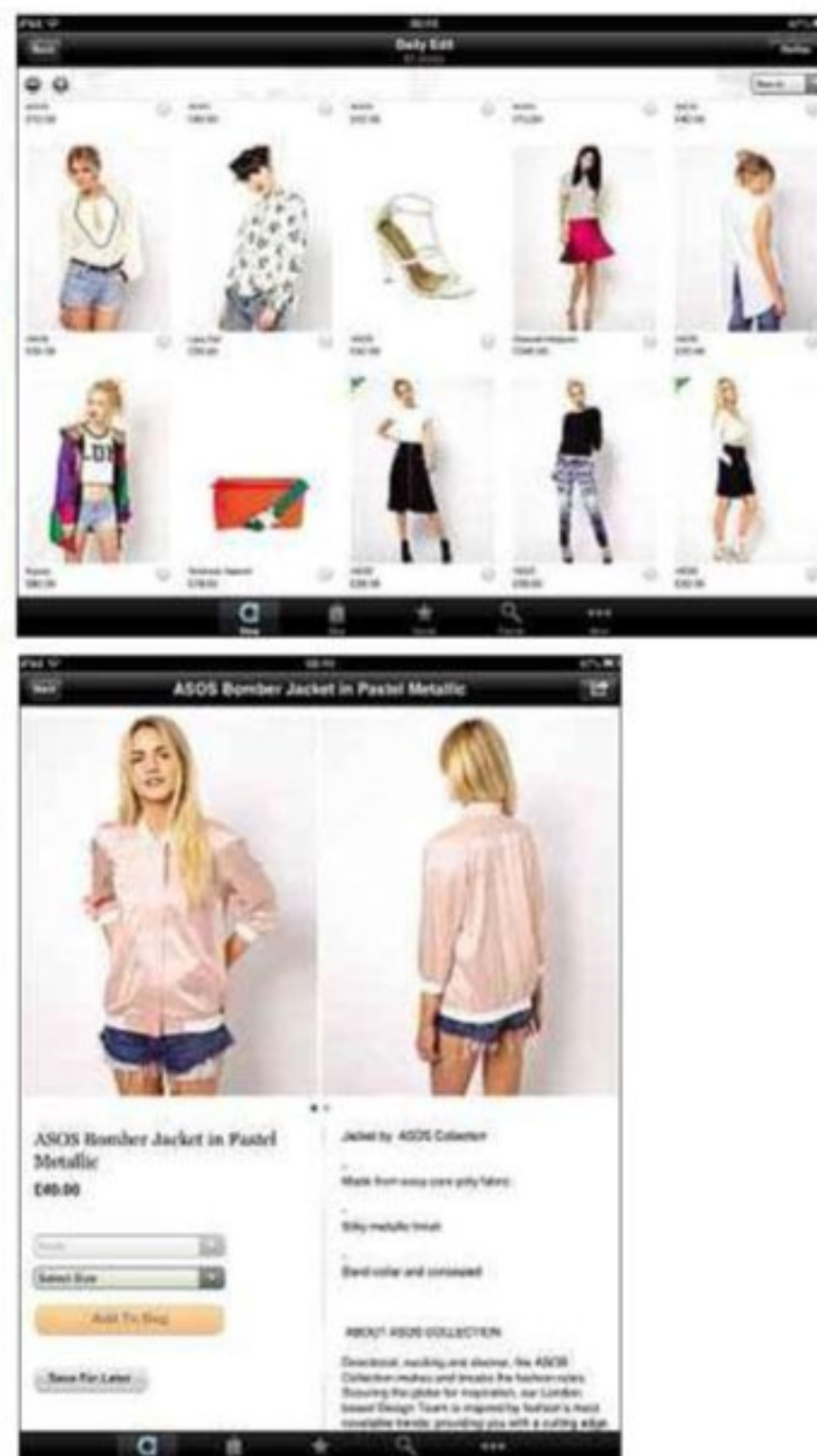




➤ **Breakfast club**  
 Adobe DPS was one of the first iPad publishing platforms, though it only later became an off-the-shelf product, and has been adopted by many leading magazines. Elegant contents, navigation and subscription features are built in



➤ **One of a kind**  
 Periodical publishing is expensive with DPS, but Creative Cloud users can release Single Edition apps free of charge – a good option for self-promotion and brochures



➤ **Fashion forward**  
 Magazines aren't the only suitable type of publication: this ASOS catalogue, with live shopping, is also done with DPS







**Think alike**  
App Studio adds palettes in much the same way as DPS but works in both InDesign and QuarkXPress

# Quark App Studio

APP STUDIO STARTED life as a tool enabling QuarkXPress users to create design-rich iPad publications, rendering layouts as layered bitmaps, like most of its rivals. Since then it's pivoted into a quite different service that creates digital publications in standards-based HTML5 and supports Adobe InDesign as well as QuarkXPress. The feature set for designers remains largely the same as before, but the resulting issue sizes are noticeably trim, and text can be selected, searched and bookmarked by users in the apps you create, making the reading experience feel more open, interactive and shareable.

The design process is straightforward: there's a single floating window, the HTML5 palette, that's used to apply interaction and media 'enrichments' to your pages and configure them, and the App Studio Publishing palette, which is used to export and upload issue sections to the App Studio portal.

The process of enriching pages is fairly well integrated with the core design tools. Picture boxes just need to be tagged with the relevant options, from button action behaviours to embedded or streamed movies and sliding layout panels. The principle of adding new media palettes to

DTP software is the same one Adobe has adopted with DPS, among other vendors.

The App Studio web portal is used to combine the various sections you might choose to upload – different people can work on the same publication at once and submit their pages – and set up metadata and parameters. Articles and pages can be rearranged here, and pages tagged as adverts are automatically excluded from the visual table of contents that's generated, recognising that magazines don't generally list ads on the contents page.

Testing is done online via web browser or by using the App Studio app on a device, such as an iPad, and copying the compiled issue back from the online portal; this can be done before you have to commit to a publishing plan. The portal is also used to configure the final custom app itself, and it helps streamline the

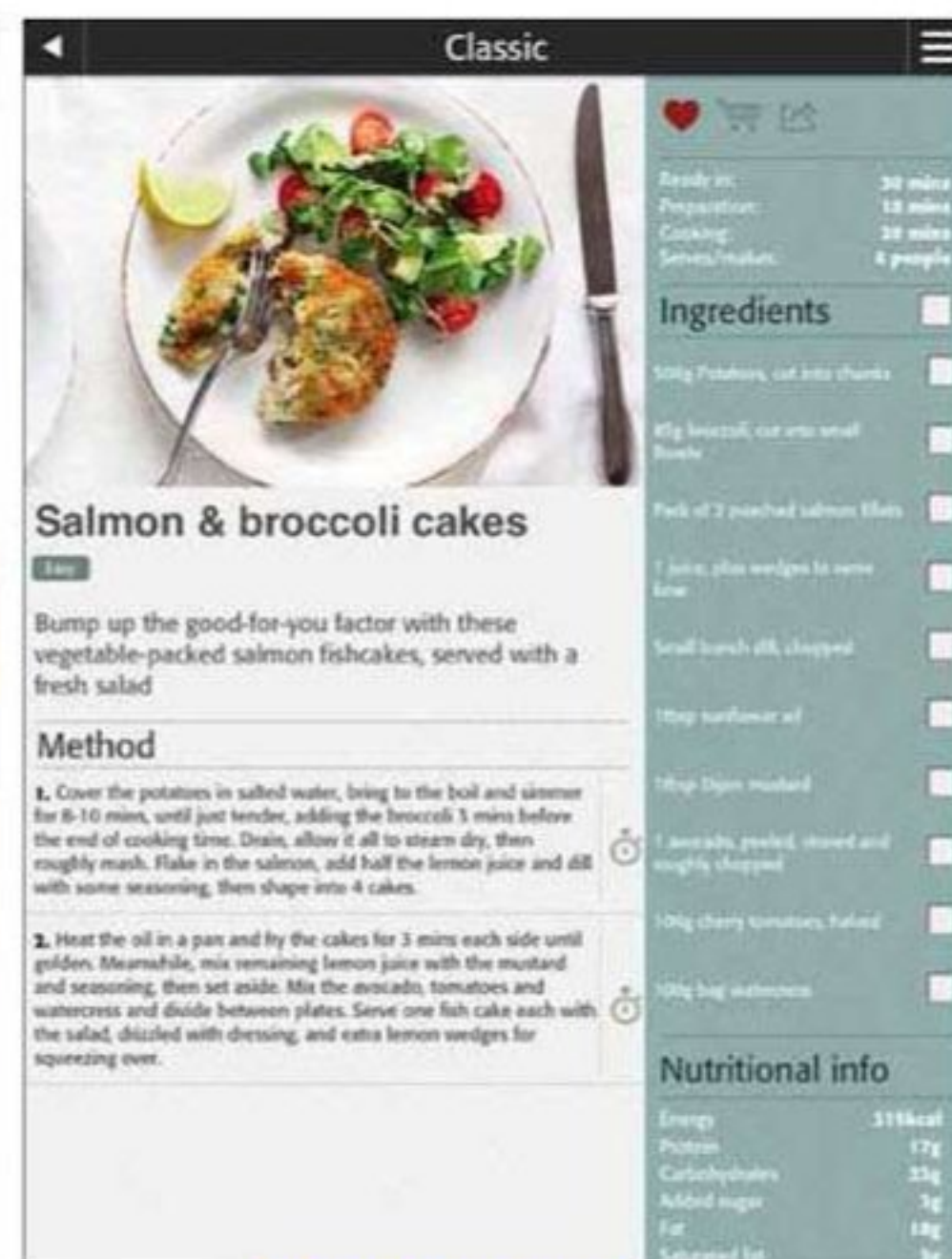
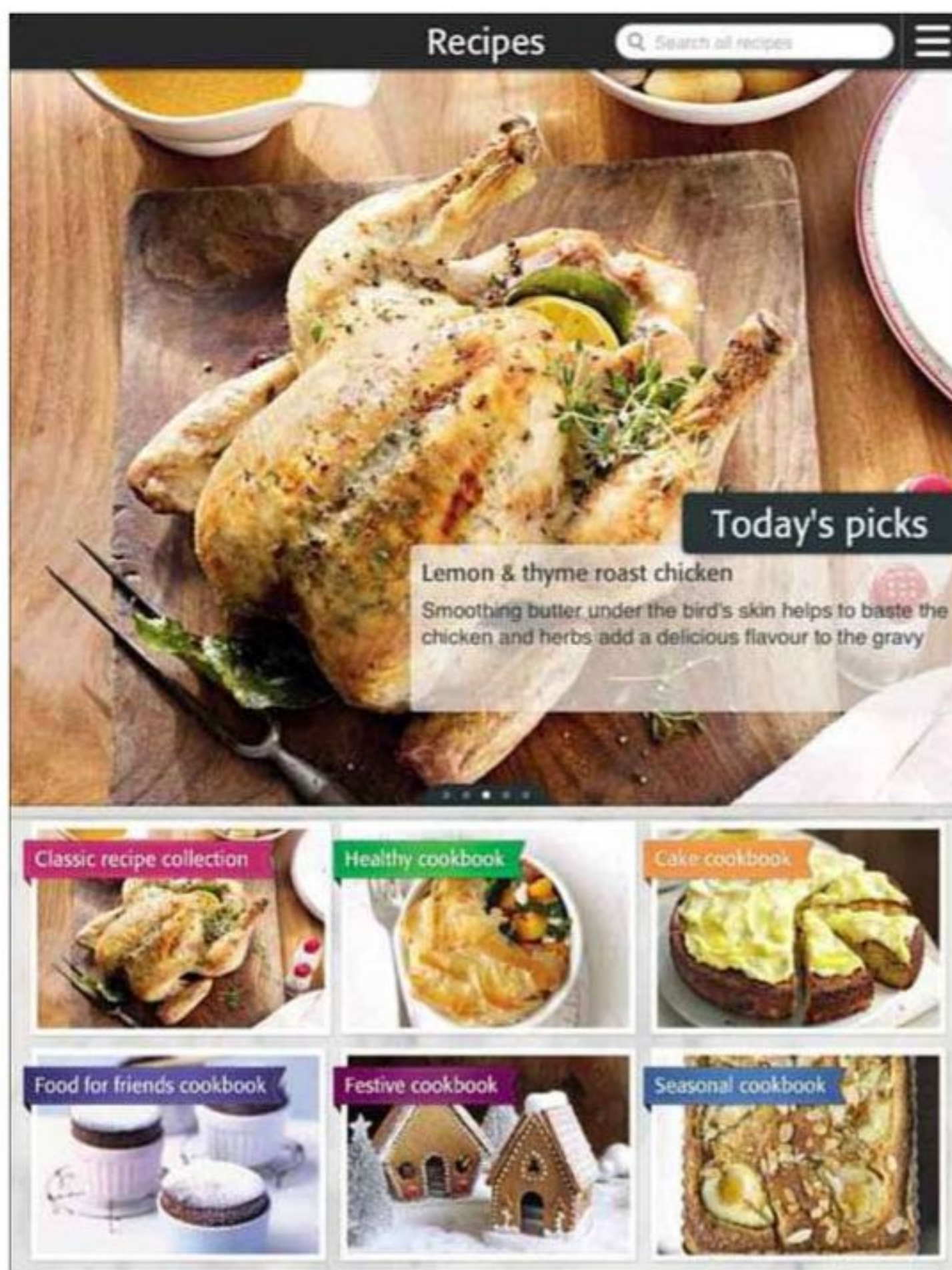
submission process to an extent. Issue hosting is provided by the App Studio service (remember that issues of a periodical are published separately from the app you create to display them, which readers will install only once; the App Store hosts the app, but the publisher hosts the issues); you can opt to use your own FTP or Amazon S3 hosting instead.

App Studio itself is free to install. Self-contained Single Editions cost a flat £139.95 each to produce – cheaper than Adobe's standard price, but without the Creative Cloud subscription freebie option. Periodicals start at £69.95 a month for iOS devices or £349.95 a month if you want Android (including Kindle Fire) as well. The iOS-only price includes 1,000 issue downloads a month, while the higher 'Android too' price gives you 2,500 issue downloads a month.

For our monthly iPad mag averaging 1,000 issue sales, the annual cost would be just £839.40. Going to Android and Kindle Fire too steps it up to £4,199.40 a year, but you get more downloads included. If you go over your available downloads, you pay 13p per download, or you can buy non-expiring discounted bundles starting at 5,000 issues. →

**SINGLE EDITIONS  
COST £139.95,  
BUT PERIODICALS  
START AT JUST  
£69.95 A MONTH**





#### Recipe for success

While Quark's previous iteration of App Studio was firmly rooted in magazine design, the new HTML5 solution should lend itself to a wider variety of publications

#### → Backward and forward

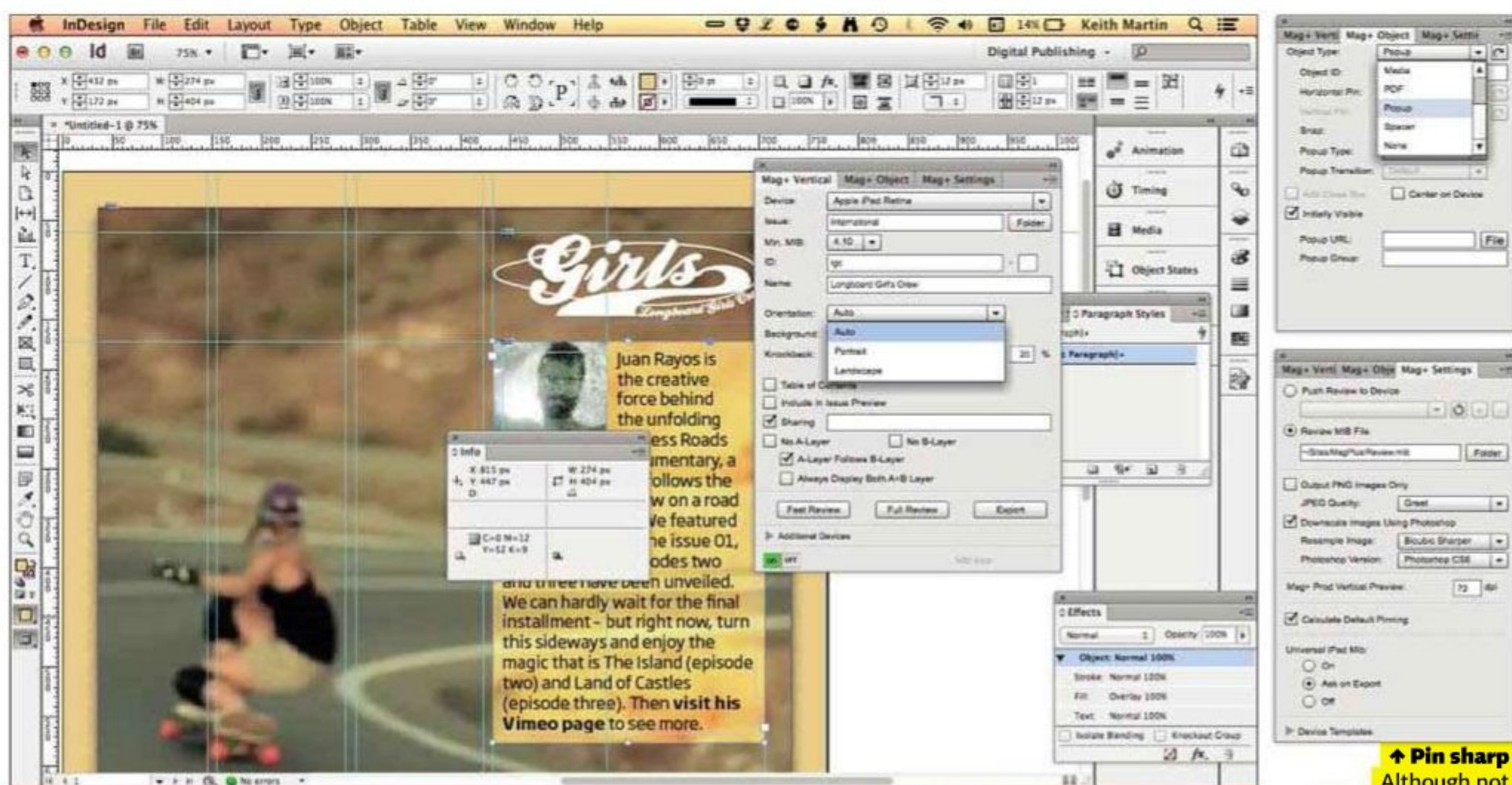
The switch to HTML5 doesn't mean you have to stop thinking in terms of page layouts. App Studio is still suitable for publications that pursue visual impact through graphic design the old-fashioned way



#### ← Pop-up shop

Features like this info pop-up can be set to spring out when a page element is tapped, packing more content in and make the reading experience more interactive





↑ **Panel show**  
Mag+ works exclusively with InDesign, adding several panels to the app as well as installing production and review tools

↑ **Pin sharp**  
Although not everyone will use it, the ability to adapt layouts for different orientations with a degree of automation is an interesting option

# Mag+

ONE OF THE first demonstrations of what tablet magazines might look like, created months before Apple revealed the iPad, was the work of family-owned Danish publishing giant Bonnier. After bringing its concept into the real world as the engine behind much-talked-about early iPad magazines such as Popular Science, Bonnier spun it off as a digital publishing platform for others to use, retaining the original name of the project, Mag+.

Mag+ is a digital publishing plug-in for Adobe InDesign. You create interactive layouts within InDesign using the Mag+ panel (a paradigm that should by now feel pretty familiar) that's installed along with the separate Mag+ Production tool. Items in a layout are tagged with object types, including Control Image (for interactive images or slideshows); Hotspots (to take the reader to a page or URL, or to trigger video, audio or a popup item in the page); and that most open-ended of all features, HTML (where you can paste in your own code to do whatever you please).

'Pinning' is an interesting feature. This helps you create single layouts that adjust to fit both horizontal and vertical orientations when the user turns the device. There's also the more traditional dual

layout option (if anything in this field can be described as 'traditional'), where each layout is designed separately. Creating a single self-adjusting layout gets around the problem of having to design each page twice, once for each orientation, but treating the horizontal and vertical layouts as separate allows totally different content to be used in each; which option is right for your publication will depend on your design intentions and to some extent on your audience.

The Mag+ Reviewer app is used to test issues quickly during the production process.

The cost of publishing through Mag+ isn't particularly low for some kinds of publishing, but can be quite cost-effective for others. A Per Issue app is the equivalent of a Single Edition publication in DPS or App Studio, and can be published

**ONE-OFFS COME AT A FLAT FEE OF £699, BUT A YEAR OF MONTHLIES IS ONLY £3,108**

for a hefty flat fee of £699. The Monthly plan, for a single publication (one app, one device) with as many issues as you want to create, costs £259 per month, so our benchmark monthly iPad publication would cost £3,108 for the first year. You could take this to one more platform for an extra £69 a month or to all platforms – iPad, iPhone, Android tablets, Android smartphones and Kindle Fire – for a higher supplement of £129. Alternatively, to publish any number of issues to any number of different apps for all the different platforms, there's the Unlimited plan at £1,999 a month. Best have a rummage down the sofa.

If you choose to arrange your own hosting of your issue files, you deal with the bandwidth charges yourself; otherwise, Mag+ can do this, and within certain limits there's nothing more to pay. The Monthly plan gives you 250GB of data transfer (per month) and the Unlimited plan gives you 10TB. If you exceed that limit, it's \$0.17 (about 11p) per GB after that. For a regular monthly magazine, if your issues average 250MB each, which is realistic to high for most titles, you have scope for 1,000 downloads without paying any extra.





← **Horses for courses**  
Aquafadas supports both straight replicas, with ready-made navigation features, and native apps, with unusual support for web reading and EPUB3 as well

# Aquafadas

→ **Branché**  
Issues are designed locally, but a portal lets you manage them

BASED IN FRANCE, Aquafadas created the AveComics platform and collaborated with Quark on its original App Studio offering, now renamed Quark AVE Publishing. Meanwhile, it sells its own eponymous magazine platform based on the same engine, fronted by a designer-oriented digital publishing tool for InDesign users.

The Aquafadas publishing process involves tagging boxes in a regular layout, adding enhancements and interaction options (including video and embedded or linked HTML), and exporting the results. The digital issues generated from your layouts are then read in a custom app that's prepared for each supported platform. You can choose which path to take with your publication – digital replica or device-native – and, unusually, you can publish to a web-based reader app for more general non-App-Store publishing. You can also output to EPUB3, the fixed-layout ebook format, although that's a very different animal.

The cost of publishing a basic 'PDF issue' is £115, or a discounted £1,260 for 12 monthly licences. Publishing what Aquafadas calls an 'enriched' issue costs £280, or £2,880 for 12 monthly licences in advance. Ah, but there's also a £500 per

platform one-off setup fee for app generation, which brings our benchmark figure for publishing a monthly native iPad magazine to £3,380 for the first year, then £2,880 for each subsequent year. If you'd rather go for a digital replica approach, you'll pay £1,760 for the first year and £1,260 each year after that.

Each app can either have a single issue file embedded directly, for one-offs, or can be a periodical or bookstore-style container, with new issues or publications being fed into it as they're published.

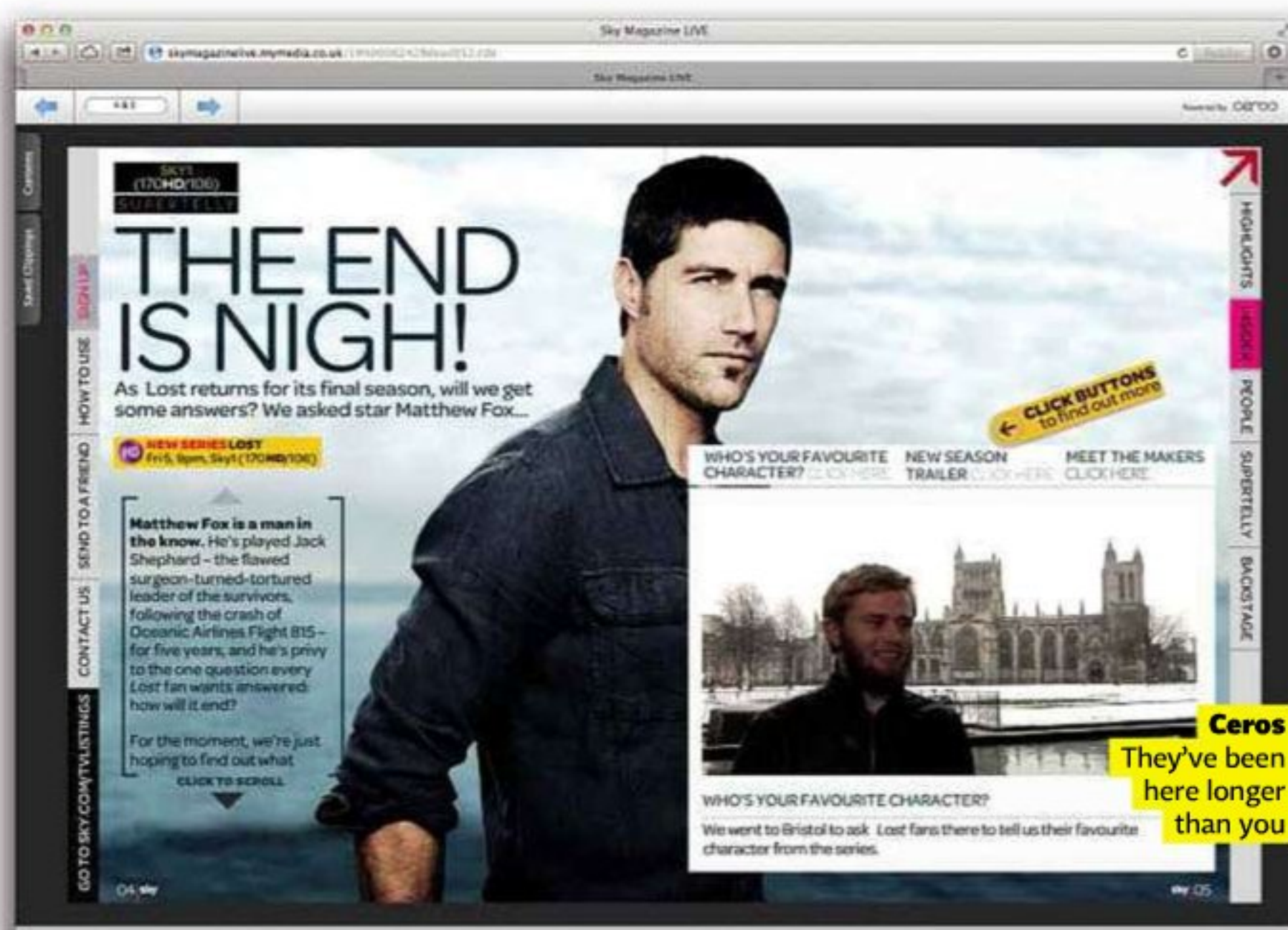
An unusual extra is the ComicComposer production tool, used to create digital comics and graphic novels with an optional 'Reading Page' mode for zooming between panels. These are cheaper than regular digital publications, at €100 (about £85) per app and €280 (about £240 for a one-issue publishing licence. →

**YOU CAN CHOOSE WHETHER TO GO DEVICE-NATIVE OR ADOPT A REPLICA FORMAT**



→ **Boom time**  
Aquafadas' clients are many and varied





## Ceros

Ceros (ceros.com) has been around in digital publishing since before digital publishing was about tablets. It was one of the first serious solutions for presenting digital replicas online in page-turning Flash format, and it has moved with the times to embrace Flash-free HTML5 publishing to iPads, iPhones and other mobile devices.

You upload content to a portal and assemble your publication there, with a dedicated production tool suite – a collaboration-friendly design environment that Ceros tells us is like ‘a cross between InDesign, Keynote and Google Docs’.

Rather than traditional publishers, Ceros is mostly interested in working with brands and media owners, an area of publishing that’s growing faster than the magazine market. So its pricing structures don’t fit our fictional magazine project. The core approach is an annual contract that allows unlimited forms of publishing – to regular device apps for iOS, Android and so on, and to web apps, embedded web content, and more. This suits a cross-media marketing exercise better than a digital magazine, and shows how publishing is expanding beyond content vendors into all areas of industry.

## FutureFolio

Created by Bath-based Future Publishing for its own use and now offered for licence, FutureFolio (futurefolio.co.uk) can be used to create digital replicas with enhancements including slideshows, movies and

panoramas, or fully native tablet content with scrolling panels, annotations, popups and so on. So one option would be to start with the replica approach and progress.

FutureFolio runs partly on Apple’s iOS Simulator, so you’re working in the destination environment from the start. This makes testing design and interaction a natural part of the process.

Templating is central: structures are set up at the start, with variations to accommodate predicted needs, and the content is then fed into these structures. Bespoke page layouts are possible, but the advice is to plan your templates properly and stick with them. However, design is still an important part of the process, Michael Vincent, FutureFolio’s business development manager, told us. ‘We want designers, not techies, to learn it.’

FutureFolio’s pricing is straightforward: for standard (or ‘Professional’) accounts there’s a £350 charge per issue and a stepped scale of download fees, starting at 15p each for the first 5,000 downloads, then 12p up to 20,000, 10p to 50,000, and so on. For bigger hitters there’s an Enterprise plan: £1,250 a month, £80 per issue, and a download scale that starts at 10p for the first 50,000 downloads.

## MagazineCloner

The clue to MagazineCloner’s approach is in its name: it helps publishers reproduce existing print publications, working from PDF layouts and optionally adding video, photo gallery enhancements and so on. That’s not all there is to it: MagazineCloner (magazinecloner.com) also offers a

‘custom edition’ option for publications that behave more like true native iPad mags. All titles can be published as standalone apps or within Newsstand, and are also made available in the independent cross-platform Pocketmags store. This doesn’t have the cachet of Apple’s Newsstand, but it’s a one-stop shop for iOS, Android and Kindle Fire, as well as Mac and Windows. It also runs on the Blackberry PlayBook (lol) and, intriguingly, within Facebook. All these platforms are included in a standard contract.

As with most service-oriented systems, MagazineCloner’s costs are negotiable, but here are the basics. The setup fee for launching a commercial consumer title is £600, per publisher rather than per title. The issue sales income after Apple’s 30% is split between the publisher (60%, which amounts to 42% of cover price) and MagazineCloner (40%). There are no other fees. If our monthly title with 1,000 readers had a £2.99 cover price, it would achieve a first-year revenue of £14,470.

If you want a free or B2B title rather than a paid-for consumer-oriented one, MagazineCloner won’t do it for a 28% share of zero; there’s an annual fee of £2,500 per publication instead.

Revenue sharing at least means you can start a paid-for publication without a big upfront commitment, and if you’re more successful than you expect you’ll continue to get the same cut without triggering any extra fee thresholds.

## Magzter

Magzter (magzter.com) is relatively new, but it’s making big waves with publishers. It’s firmly in the replica camp, working from PDFs to create virtual copies of print products. There’s actually not a great deal that can be done to the PDFs in terms of enhancement, although it’s possible to use InDesign or Acrobat Professional to make an interactive PDF with embedded videos and hyperlinks. This done (or not), you just upload your PDFs to the Magzter portal and the automated result is pushed out to the various app stores.

It’s Magzter’s pricing model that’s getting attention. In a nutshell, there’s no

**IT’S MAGZTER’S PRICING THAT’S MAKING WAVES: THERE ARE ALMOST NO FEES**



## PADIFY TAKES ASSETS CREATED FOR PRINT AND CONVERTS THEM INTO HTML5

charge for almost anything. If you give your publication away, there's a fee of 30p per issue download, but if you sell it you pay a revenue share instead. This is a 50:50 split between you and Magzter, after Apple's 30% (or 10% to Google Play), which means you get 35% of the cover price (45% for Android). If you sell nothing it costs you nothing. You can create a brandable 'white label' Newsstand-ready app, and Magzter might make you custom-branded apps for Android and Windows 8 too, 'depending on the size and circulation of the magazine'.

If you want to create a cleverly designed native digital mag, Magzter isn't for you. But for getting replicas of existing print titles onto the App Store quickly and cheaply, it's a very interesting option.

## Padify

Padify ([padify.net](http://padify.net)) is an entirely online tool and service that takes assets already created for print and makes a 'quick and dirty' digital version – but as HTML5. You then use a web-based layout editor to polish up the results, apply responsive design elements and behaviours, and add videos, slideshows or other interactive features. The final step is to push the result out to native device apps, web apps for device-agnostic delivery, or EPUB3 for ebook readers that support this fixed-layout version of the EPUB standard (similar to iBooks Author publications – see [p37](#)).

Michael Kowalski, founder of Contentment, the company behind Padify, says the product is designed to make publishers' lives easier. 'Our big focus is about optimising the editorial workflow, making it really simple for a non-technical person to quickly achieve great results.'

Dropbox syncing is used to get content into the system, and the enhancement process and design production is done through Padify's online portal. Layout template structures are provided, and because they're responsive they can work across different screen sizes, adjusting things like the number of columns. This is driven by a 'create once, publish everywhere' ethos, which prizes workflow efficiency and aims to help publishers

reach many devices without significantly increased workloads.

Although the process is highly template-driven, it's designed to allow layout editing through the workflow, enabling individual layouts to be tweaked to suit different content. This may mean you don't have such fine-grained design control as you're used to in print, but it's a trade-off that could make a lot of sense.

The basic cost is £2,400 per year, which includes app setup, then 20p per download for paid-for titles or £500 per issue for free titles. There's also a bookshelf-style app, at £1,200 for setup and a 10% revenue share on the in-app purchases of book content. For EPUB3 and HTML5 authoring with no app creation, Padify starts at free for single users or a monthly charge per user for extra features including collaboration options.



## PixelMags

PixelMags ([pixelmags.com](http://pixelmags.com)) is known as a digital replica solution, but it also accepts a number of different input formats, from PDF through Adobe DPS and WoodWing to HTML5. It's portal-based, so you upload content and either flip it straight into a basic replica or do some final page enhancement through your web browser.

As well as creating apps that work in the App Store and Newsstand, PixelMags can make your content available through the new Readr service, a cross-platform distribution channel. A unique twist of Readr is AnyTime, which gives users 20 minutes of free reading time a month to use on any magazines they like – a bit like browsing in the newsagent's. This can be upgraded to AnyTime Unlimited – which sounds like a phone tariff, but is more like

a music streaming service for magazines – to get unlimited browsing of all the supported magazines for \$9.99 (about £6.50) a month. If you feel like giving it a try, MacUser is among the titles available.

## Quark AVE

Although Quark has switched its App Studio platform to HTML5, its previous solution, based on Aquafadas, is still available to QuarkXPress users as Quark AVE Publishing ([avepublishing.quark.com](http://avepublishing.quark.com)). It's a design and production process that works in the page layout app to create fully native issue files ready to be tested in a previewer or sent out as digital magazines or books. This is now considered a legacy option by Quark, but it's still viable.

The design process is simple: use the Quark AVE Publishing palette to add interaction or rich-media features to any picture box in your QuarkXPress layout; export the layout; then test the file on your iPad or Apple's free iOS Simulator for Mac; and finally upload it to the AVE Publishing portal for final delivery as an issue for your app or to embed as a standalone 'single edition' app.

The basic charge for Quark AVE Publishing is £255 per issue, with bulk discounts such as 12 issues for £2,599. There's also a £499 app setup fee, however, so the first year's outlay for our imaginary monthly title is £3,098. There are no download costs, since you host the issues yourself, but you'll need to have an uncapped hosting facility ready. As with other PDF-style page-rendering solutions, issues can be large: just 100 downloads of a 200MB issue would mean 20GB.

## Stonewash

Stonewash ([stonewash.co.uk](http://stonewash.co.uk)) is a 'magazine framework' for digital publications for iPad, iPhone, Android, Kindle Fire and Windows 8. It's designed for publishers with existing print content who want to get it into the digital realm with the option of adding custom elements and overlays.

You upload PDF layouts, then log in to a web portal and add whatever metadata and enhancements you want. Hot spots are drawn over the PDF page to add links and other elements. Stonewash's Stacks feature lets you provide additional content to readers – images, videos, and text. The idea is to give more than can be fitted into a single screen.

The underlying page structure is built from PDFs, which precludes the →



**STONEWASH** → scrolling, sliding elements of digital-native publishing tools – at least without help – so this is the workaround. Think of these as overlays: content that can be pulled up over the current page to let someone read clear, unadorned text, say, or go through an image archive.

Creating and submitting your magazine app is done through the Stonewash portal rather than the Apple Developer site (or other app stores). The admin site gives some basic design control over your app, and information-level changes can be pushed to your existing readers without asking them to download an app update.

If you want to make a one-off publication, it's possible, but Stonewash is really designed for periodicals. There's a 'one-time setup fee' of £1,400 – per platform, not just per publication – plus per-issue fees. Basic PDF-to-device publishing costs £249 each time; searchable text, 'easy read' articles, image galleries, video, 'overlays and hotspots', and social media integration each add £100-£175. Go the whole hog and there's a £54 discount, taking the issue cost to £995. There are no bandwidth charges and no percentages off the sales income, however.

For our monthly title the minimum annual cost (no enhancements) would be £4,139 for the first year, and for something with all the rich media options this would rocket to £12,345. At least the extra features are costed on a per-issue basis, so you don't need to commit until you're ready. The setup fee includes one issue's costs, but remember to add the £1,400 again if you want to hit Android too, and again for Kindle Fire, and so on.

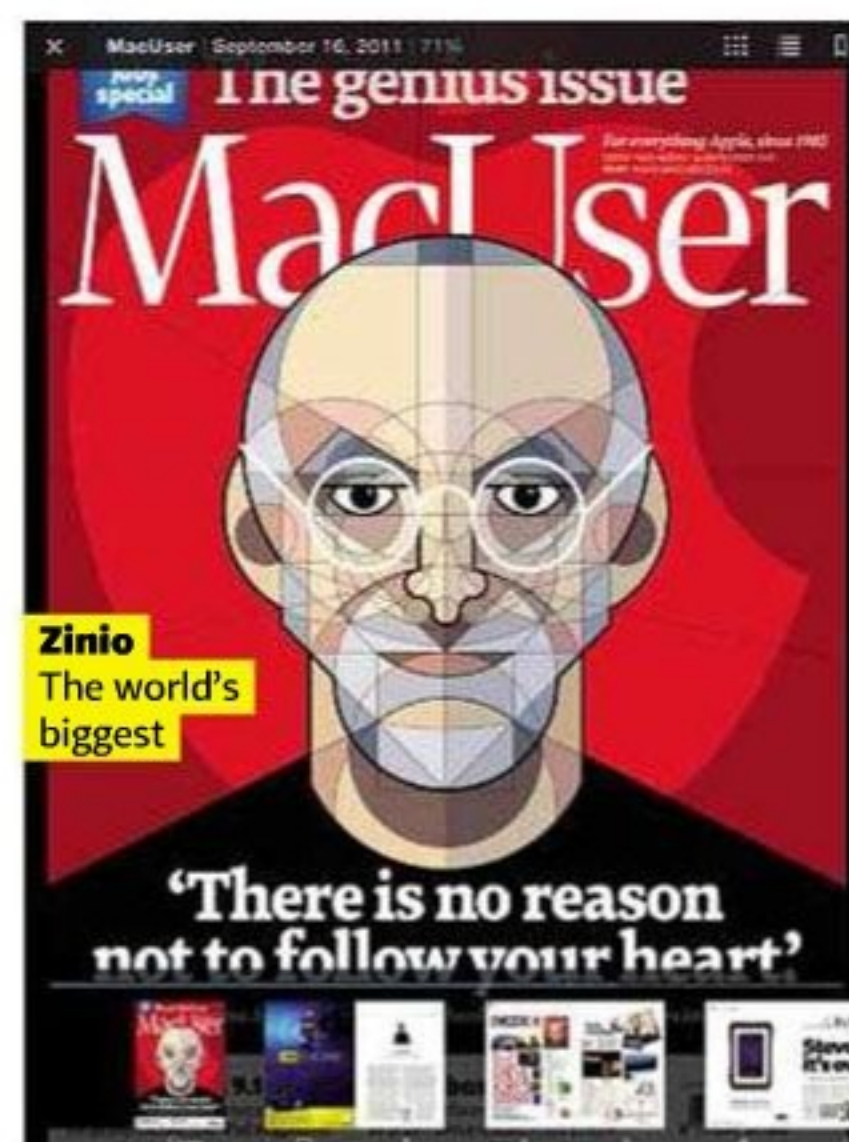
## Tablish

Tablish ([tablish.co.uk](http://tablish.co.uk)) is a digital replica production service that converts PDFs into on-screen pages. All your design work is done before you upload the PDFs. Although it's a replica process, it's quite flexible and can add enhancements to the pages including embedded video and audio, scrolling text boxes and links. Tablish is currently iOS-only, with BlackBerry PlayBook, Kindle Fire and Android support in development; but as the iPad is where the vast majority of paying readers go and spend money this won't be a big problem for most.

Tablish doesn't have a rate card, instead inviting potential clients to contact the sales team. Having read this feature, you'll be pretty well prepared for negotiating, but the basic costs break down into an annual software licence of £600, which includes 10,000 issue downloads; a per-issue cost of £20; and a one-time app setup fee of £250. Beyond 10,000 downloads per year there's a fee of 6p per sale, but this is paid for as needed, there's no need to bulk-buy. Our simple monthly title with an average of 1,000 sales each issue would cost £1,210 in the first year, £960 each year afterwards.

## WoodWing

WoodWing's digital publishing system is a little different to most. It's effectively a back-end content management system that works with Adobe DPS in InDesign.



It gives you different palettes, which the company feels present better-organised tools and features, but outputs through the same channels as DPS.

Paul Driscoll, publishing director of Media Systems Limited, the organisation behind WoodWing in the UK, was keen to position the product clearly for us: 'The only reason why you'd want WoodWing is because you want or need a publishing CMS.' It's not particularly well suited to (or indeed aimed at) smaller publishing projects or independent outfits, but it's a big player in the larger corporate and enterprise publishing world.

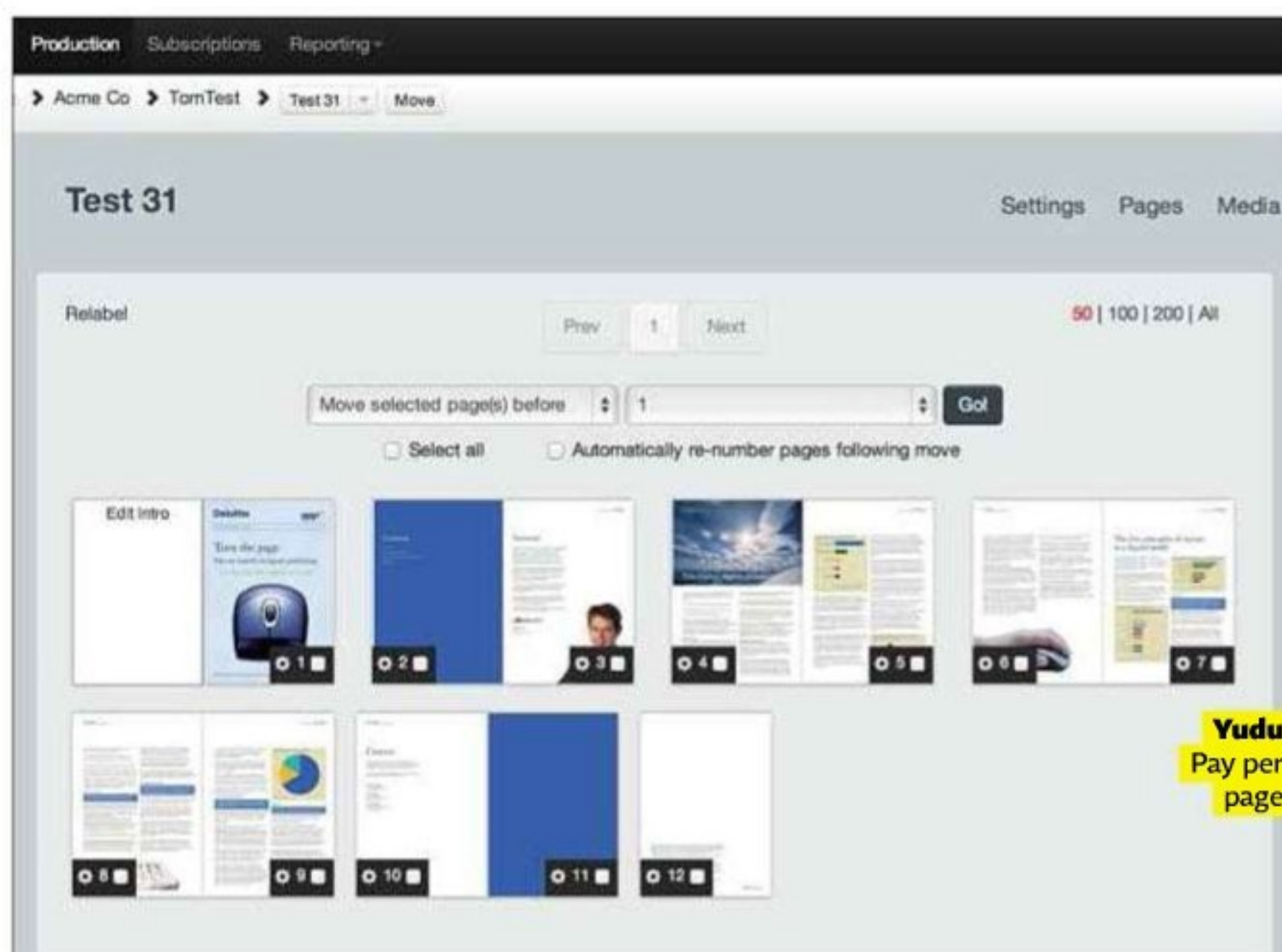
WoodWing ([woodwing.com](http://woodwing.com)) doesn't fit our single monthly magazine pricing exercise because it's not designed to be cost-effective for a one-off title.

## Yudu

Yudu ([yudu.com](http://yudu.com)) is a major name in the digital replica arena, although it provides tools to extend the features in digital mags well beyond basic replication of print.

The process begins by uploading your PDF layouts, which are then converted to the 'Yudu reading format' on the server. From here, enhancements can be added, including video, slideshows, panoramas, games and quizzes, vertical scrolling, animation, custom feedback forms and more. It's all built on top of PDFs, but there's a good range of digital tricks. Text search comes as standard (not a given with page-rendering solutions) and there's a 'send to a friend' option for your readers that puts a screenshot of the current page into an email, making sharing easy.

Yudu offers an entry-level publishing option for those interested in testing





things before making a big commitment. Easi-App starts with a customisable app shell and includes issue enhancement options. The app costs £2,000 a year, and the issue publishing fees are charged per the number of pages you make, paid for in blocks of 500. Four our fictitious magazine we've assumed 96 pages (although there's actually no need to stick with the normal print production requirement of multiples of eight). Yudu quoted £2 per page for this, so the annual costs would be £4,304 – although cutting down the page count would be an effective way of making savings, if a slightly unexpected one in the digital realm.

This translates to roughly £350 per issue for a year of publishing. The per-page fee gives you fairly fine-grained control over publishing costs, although it may be a little disconcerting to some. There's no revenue sharing, and the costs are all up-front: the hosting of your published content is part of the contract, with no per-issue download charge. You're free to host elsewhere if you prefer – just do the sums and make sure your hosting supports the required amount of data transfer per month.

## Zinio

Zinio bills itself as 'the world's largest newsstand'. It certainly does offer a very large range of digital replica titles – thousands, in fact – and it's one of the ways MacUser itself is published for iPad. Much the same as PixelMags, rather than displaying a rate card it invites potential customers to get in touch via the website and discuss their requirements, which doesn't make it easy to compare with other services. If you were to assume, however, that MacUser was fairly shrewd about this stuff and wouldn't have signed up to a service that wasn't relatively cost-effective, you probably wouldn't be entirely mistaken.

Once you've signed up, Zinio offers a three-level approach that works for publishers from small to large: the entry-level Fusion Web, for DIY embedding of rich media using Zinio's web portal tools; the mid-level Fusion Design, which uses an InDesign plugin to streamline the digital production process; and the high-end Fusion Link, for integration with third-party authoring tools such as WoodWing. As with other portal-based tools, if all you want is a straight replica edition without enhancements, that can be achieved with very little effort. ■



# The iBooks alternative

**WITH ALL THIS** talk of 'single editions', it might strike you that a magazine with only one issue isn't such a very different concept from a book. That's true, but it is very different from an ebook – or at least what's been almost universally meant by an ebook until now.

The crucial difference is that digital magazines are designed as static pages that look the same every time you open them on any device, while electronic books consist of text that flows into whatever container the user provides. So while an ebook may consist of text and pictures, you (the author/designer) don't normally get to dictate exactly where they go. After all, you don't know what shape the user's screen will be, or how big they like their text for comfortable reading. Ebook readers let them change that at will.

This obviously wouldn't work with a magazine layout, because changing the size of the text would just break everything – although with the kind of smart anchors and pinning we're beginning to see in digital layout software, perhaps one day it could fix itself.

Apple's iBooks platform started out as a container for flowing text interspersed with pictures, in conventional ebook fashion, and most titles in the iBookstore are still ebooks in that sense. But in January 2012 Apple introduced a new format aimed at illustrated textbooks, along with a Mac app, iBooks Author, to lay them out. Upgraded to version 2 last October, iBooks Author is a basic but complete desktop publishing package that focuses on page layout, and it's free.

We found (MacUser, 23 November 2012, p50) it still has limitations that will frustrate many designers, but iBooks Author provides a layout tool, and a platform for delivering its output to the App Store, with a relatively shallow learning curve and interactive features reminiscent of those offered by far more expensive and complex digital publishing systems, including audio and video, pop-overs, scroll boxes, and buttons that reveal content or navigate.

So why not create your digital publication for free in iBooks Author? It's a possibility. But the iBookstore and Newsstand are two very different things. Newsstand is really just a part of the app store, and everything listed in it is an app. When you sell (or give) a customer an app, you can use it to offer them more content later, such as future issues of a magazine; it's potentially the start of a profitable relationship. An iBook isn't an app, it's just a book, so it can't facilitate any kind of two-way communication with your customer.

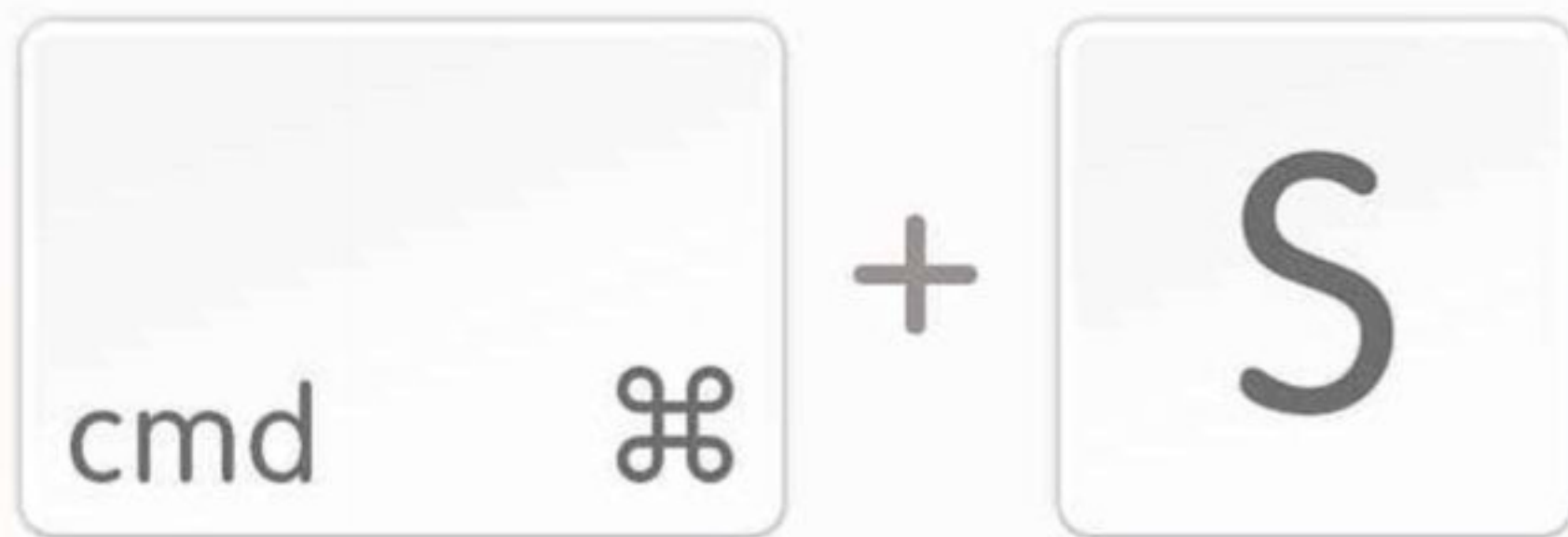
iBooks Author also lacks any kind of workflow integration. There's no direct way to get content into it from existing QuarkXPress or InDesign files, for example, or vice versa. All you can do is create iBooks from scratch and sell them each in the iBookstore. You're not allowed to sell them elsewhere.

Nor will users searching Newsstand find them there. But, as we've said, you should be marketing your publication by other means in any case.

For one-off titles, iBooks Author is worth a look. Note that you'll need an iPad to test your designs as you work.



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IF THERE'S ONE thing computers have never been very good at, it's storing the snippets of random information around which we organise our lives. Shopping lists, reminders to pay the gas bill, a clever idea you had on the bus last night, notes from a meeting – they're too irregular to fit into a database, yet need to be easily retrievable; and in most cases, they're barely long enough to warrant a whole word processor file of their own.

That's why Apple included the Notes app with the very first iPhone. It's still there, barely changed, in iOS 6, and now appears on the Mac, too, since it was introduced as part of OS X 10.7 Mountain Lion. It's little more than a simple notepad (decorated, inevitably, to look like an actual notepad) into which you can pour your mental miscellanea; a place where you can brain dump, absolving yourself of responsibility for remembering anything, safe in the knowledge it's stored somewhere.

Not just somewhere, in fact, but everywhere. Whenever you create or edit a note in Notes, it appears on all the devices on which you've associated the Notes app with your iCloud account. That's pretty handy (when it works – see p48), and if you've ever used it you'll know how quickly you can come to rely on a feature like this.

But Notes isn't perfect, and, like many other Apple software features, it's attracted competition from third parties who reckon they can do the same thing a little better. Many of their

apps are well worth looking at even if you've never had any problems with Apple's own Notes – or indeed if you've never bothered using it.

Each of the eight apps on test here is a compact digital crate in which to store everything and anything that matters, from the shortest shopping list to the longest outline for a best-selling novel. Like Notes, these apps can sync their data via the internet, so you can pick up on your Mac where you left off on your iPhone or iPad, and vice versa. Unlike Notes, they mostly have elegant, simple user interfaces that avoid the garish literalism of Apple's yellow notepad shtick. (Yeah, we'd never do that.)

We've chosen four note-taking apps on iOS and four on OS X. Because Apple doesn't open up its own app to developers, none of these can share data directly with Notes. If you use both Macs and iOS devices, you'll need one app from each list to get your notes synced between them; check our 'Will it sync?' guide on p48 to make sure your chosen apps will play nicely. →



*Buy more  
sticky notes*



# ARE YOU KEEPING NOTES?



Look up  
'hypomnema'

subscribe.  
macuser.  
co.uk







## Justnotes

▲ If you prefer simplicity to skeuomorphism, Justnotes could be the perfect antidote to Apple's over-designed Notes app. It's about as straightforward as you can get, with a sidebar listing your notes and the main body of its window given over to the note itself. The search box is live all the time, so irrelevant entries start to disappear as you start typing inside it, and the list is further refined the longer you carry on. Matching keywords are highlighted in the note body itself within the main window.

The app has a range of automatic formatting tools, can work with smart quotes and dashes (for example, automatically replacing '-' with an en-dash '-'), and can turn URLs into active links.

There are two options for syncing: you can use a free Simplenote account (sign up at [simplenote.com](http://simplenote.com)) or sync to a local folder. If you have a Dropbox or Box account, the latter option would let you save to a synced folder associated with either of those services so that it also appears on other Macs and in compatible Windows apps; or you could use Dropbox to sync with any app that uses plain text files for each note, such as WriteUp or Taskpaper. Using Simplenote lets you access your lists through a browser at [simplenote.com](http://simplenote.com). You can only sync to one location at once. To force a synchronisation at any time, you just click the status line at the foot of the sidebar.

Justnotes' clutter-free environment really lets you concentrate on what matters – getting your thoughts down on screen – and does its job very well. At £6.99, it does look relatively pricey, especially since our two leading contenders are free. But that's still less than the price of two lattes.

**From** Mac App Store

**Info** [selfcoded.com](http://selfcoded.com)

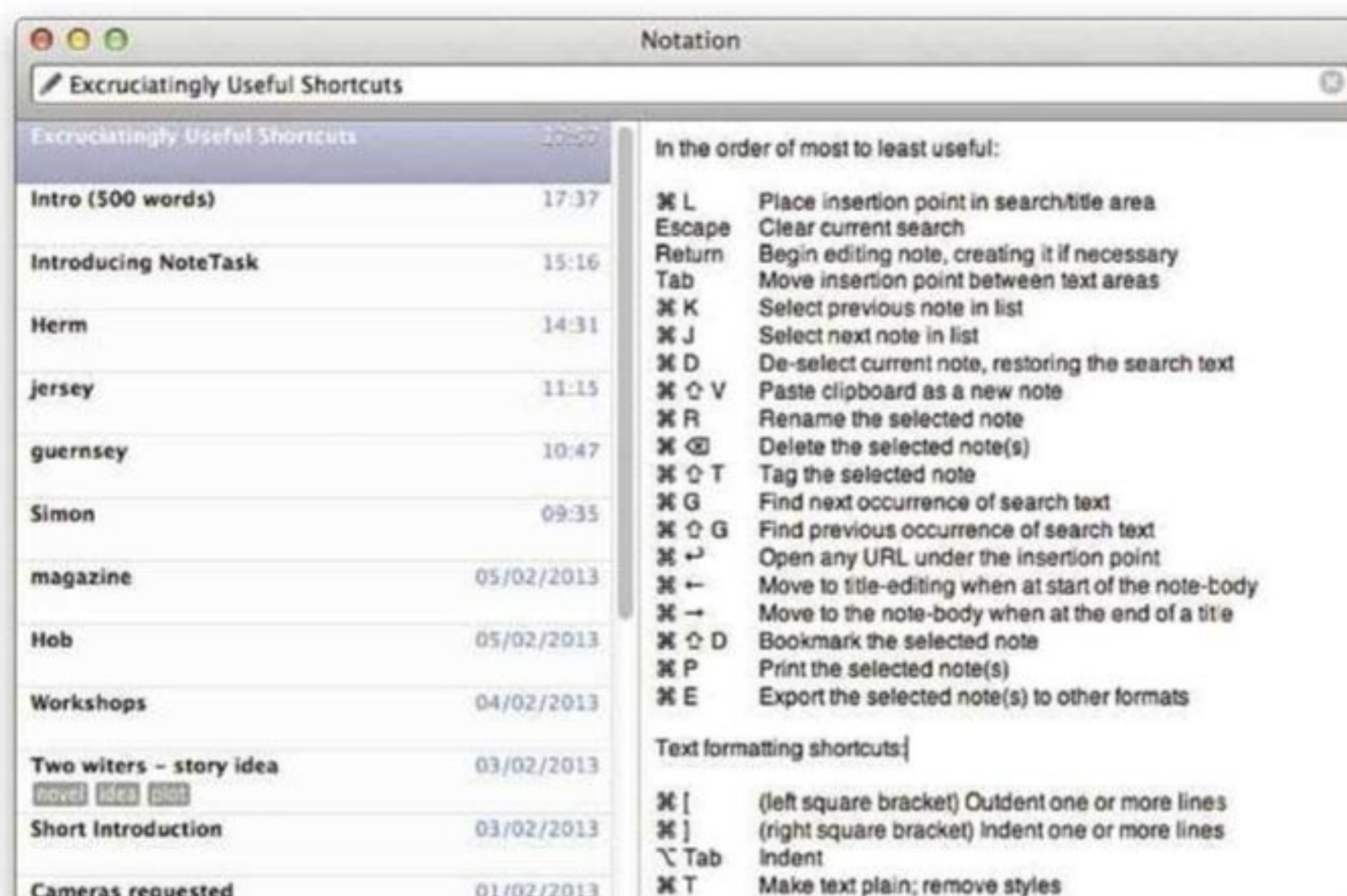
**Pro** Simple interface

**Con** Pricier than alternatives

**£6.99** inc VAT



**You can either use Simplenote or sync to a local folder, in turn perhaps linked to Box or Dropbox**



## Notational Velocity

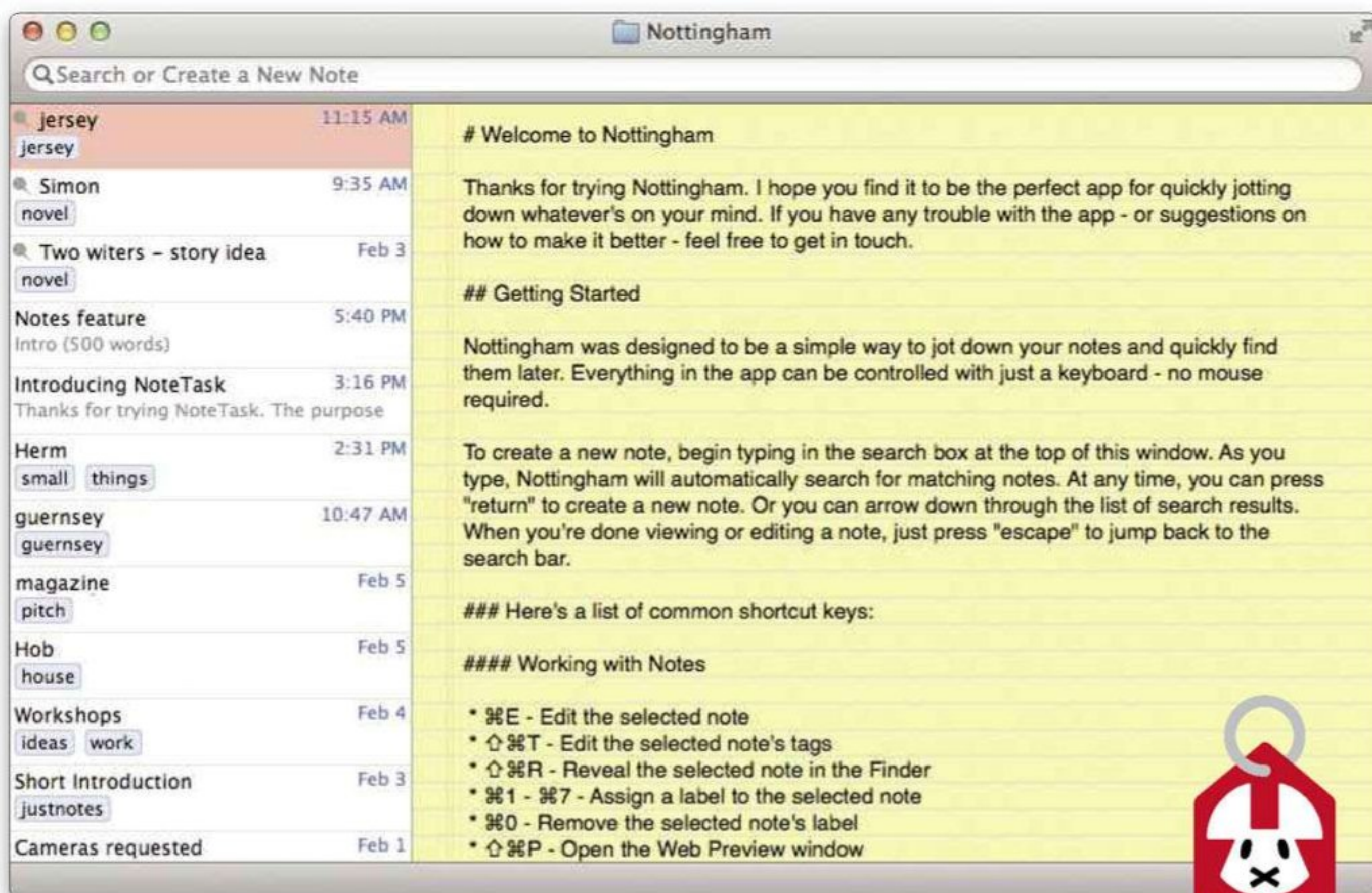
▼ If we were giving out an award for the most compact app, Notational Velocity would be a strong contender. It cleverly combines the search and note creation functions, so your first action on launching the app is always to start typing in the search box. This narrows down the list of results on the fly and, if you get to zero results, creates a new note. This should stop you doubling up common document types like shopping lists, reminders and so on, but still lets you very quickly knock up new ones based on a unique description.

Again, notes are synchronised using Simplenote and can be stored locally in any folder on your Mac, so you can effectively create a backup by storing them in a Dropbox directory. You can't use Dropbox to sync with non-Simplenote apps such as WriteUp or TaskPaper, though, because Notational Velocity uses a database rather than discrete .txt files.

The heading and body of each note sync to Simplenote without any problems, so they'll appear in other compatible apps, but tags applied either inside Notational Velocity or on the Simplenote site (or indeed within any other Simplenote-compatible app) aren't synced to the other environment. Nor can you mark notes as favourites to pin them to the top of the list.

You can, however, set bookmarks to specific notes. Each gets a keyboard shortcut, with Command-1 taking you straight to your first bookmark, Command-2 your second, and so on. Notes can be exported





# Nottingham

in plain text, RTF, HTML or Word format. You can also send them directly to an external editor for drafting longer documents. You can link between notes by using the title of one note in the body of another, surrounded by [[ and ]] braces.

Bookmarks are undoubtedly Notational Velocity's killer feature, but the missing tag sync means we can't recommend it over Nottingham. You'll have to decide which feature is more important to you.

**From** notational.net

**Pro** Free • Minimal UI • Manual note linking

**Con** Incomplete tag syncing

**Free**



**Notational Velocity cleverly combines the search and note creation functions – you just start typing**

▲ Nottingham is the most flexible desktop app on test. You can set the font and background colour or opt for a paper-like backdrop similar to Apple's own Notes. You can tweak the number of preview lines in the sidebar, configure a global shortcut, and drop a Nottingham icon in the Mac menu bar so you can close its window altogether when not in use and call it up whenever you need to make a new note.

Notes are synced through Simplenote, with all of their tags in place. You can change the folder that's used to store them locally, so you could point it to a synced Dropbox directory to create a redundant backup or to read notes from Dropbox-only apps like TaskPaper and WriteUp. All notes are saved as plain text files, and you can reveal them individually in the Finder by right-clicking in the Nottingham sidebar.

The workflow is very similar to that of Notational Velocity in that you start by typing in the search box to narrow down the list of matching notes already in place, and if by the end of typing you've turned up no hits a new note appears. It will optionally create automatic links between notes, without you explicitly linking them by entering special characters, transform-

**Nottingham lets you opt for a Notes-like presentation or pick your own preferred font and background**

ing words in the body that match the title of another note into a wiki-like hyperlink. Sadly, this is case-sensitive, so typing 'Guernsey' won't link to 'guernsey'.

Notes can be colour-coded in the sidebar to help with organisation, and you can use Markdown (see [bit.ly/markdown](http://bit.ly/markdown)) in the body of a note to apply formatting that converts to valid HTML in a web preview.

In short, Nottingham is brilliant. The fact that it's also free makes it a winner. →

**From** [clickontyler.com/nottingham](http://clickontyler.com/nottingham)

**Pro** Formatting options • Automatic note hyperlinking • Colour coding • Markdown

**Con** Nothing

**Free**







## Notesdeck

▲ This app gives you more options for accessing notes than any other on test. As well as storing your data locally and syncing through Dropbox and Simplenote, it can open Evernote folders in read-only format, accurately rendering both plain text notes and clipped web pages. You can't edit existing Evernote documents or use it as a repository for new notes, though.

The search box is always live, trimming the results as you continue typing, but it doesn't highlight your search term in the body of matching notes. Rather neatly, though, it does work across all of your linked accounts simultaneously, presenting Evernote, Dropbox and Simplenote results in a single list.

You can't add tags to your notes, and Notesdeck can't draw down the tags from synced Simplenote jottings, either. Like Nottingham, though, it does let you style your plain text documents using Markdown formatting, the output from which you can preview by clicking in the toolbar. You can export your notes as PDFs, but when you do the original Markdown syntax is exported intact, instead of being used to apply styles to the contents.

The visual design of an app is a subjective issue, but for us, set against the other apps on test, Notesdeck could do with toning down. Those big Helvetica Neue Condensed Bold labels in the sidebar listing your repositories are far from elegant, and the layout needs greater flexibility; it's annoying that you can't shrink down the notes list so that it's any less than 1.8 times the size of the sidebar.

At £6.99 it's obviously more expensive than the likes of Notational Velocity and Nottingham, which won't cost you anything at all, but the same price as Justnotes.

From Mac App Store

Info [notesdeck.com](http://notesdeck.com)

Pro Markdown • Can read Evernote notes

Con Can't write them • Chunky UI • Price

£6.99 inc VAT



**Notesdeck can open Evernote folders as well as syncing notes via Dropbox and Simplenote**

## Simplenote

▼ If you're already synchronising your notes through a free Simplenote account, it makes sense to try the service's own free universal app for iOS. It's funded by ads, and if you want to get rid of them you'll need a £13.99 annual subscription.

This makes £6.99 notes apps look cheap, but does buy you extra server-side features including RSS feeds, Dropbox sync, 30 backup versions of each note (the free account stores your last 10 revisions), and the ability to create notes by email. For many users, none of these will be essential, and the free version's ads aren't intrusive.

Revisions are handled neatly. Tapping the clock icon below a note lets you drag a slider to the left to revert to older versions or to the right to come up to date.

Syncing with an online Simplenote account is seamless; headlines, body and tags remain intact at each end. You can even use your contacts' addresses as tags if you want to share notes with them, and for that reason Simplenote requests access to your OS X address book. It's optional, and we had no trouble using it after refusing.

The first line of any note that you create is used as its title; anything you enter after that is the body. Once you've saved it, you can go on to share it online, at which point the note is assigned a dedicated web address, the contents of which update in sync with your changes through the app.

Since it's built by the same people as the syncing service many other apps rely on,







## WriteUp

it's perhaps not surprising that Simplenote trumped its iOS rivals in this test. But the full version is a lot more expensive, and other apps have their own unique features.

**From** App Store

**Info** [simplenote.com](http://simplenote.com)

**Pro** Simplenote sync • Clear interface • Instant updates • Revision browsing

**Con** Premium subscription is expensive

**Free** or £13.99 per year



**Tapping the clock icon below a note lets you drag a slider between earlier and later revisions**

WriteUp is a cross between a note-taking app and a lightweight word processor, with a web browser on the side. It uses Markdown to handle formatting, and tapping the (md) icon in the top toolbar switches between the syntax view and a fully formatted version of your document, which really helps with note navigation. Also on that toolbar is a stats panel that supplements word and character counts with estimated reading time, and options to change the display and preview fonts or select one of five different themes.

The standard iOS keyboard is extended with a fifth row of buttons to handle common formatting controls. Rather than styling the text in situ, these add the appropriate Markdown syntax to the page, leaving the cursor between the opening and closing tags so you can type your text.

The neatest feature, though, is the built-in web browser, which you can set to sit alongside the note-taking window. It feels

very much like you're running two apps in separate windows – which of course iOS won't do – and lets you refer to the web while writing and copy content into your documents. This is very handy if you're researching while you write.

WriteUp is a unique offering, encompassing the best of several worlds and not really falling short anywhere. Compatibility with Simplenote, however, would increase its appeal. Like TaskPaper (below), it only uses Dropbox to sync your work, so pick your OS X app carefully if you need to share notes with your Mac. →

**From** App Store

**Info** [writeup.prasannag.com](http://writeup.prasannag.com)

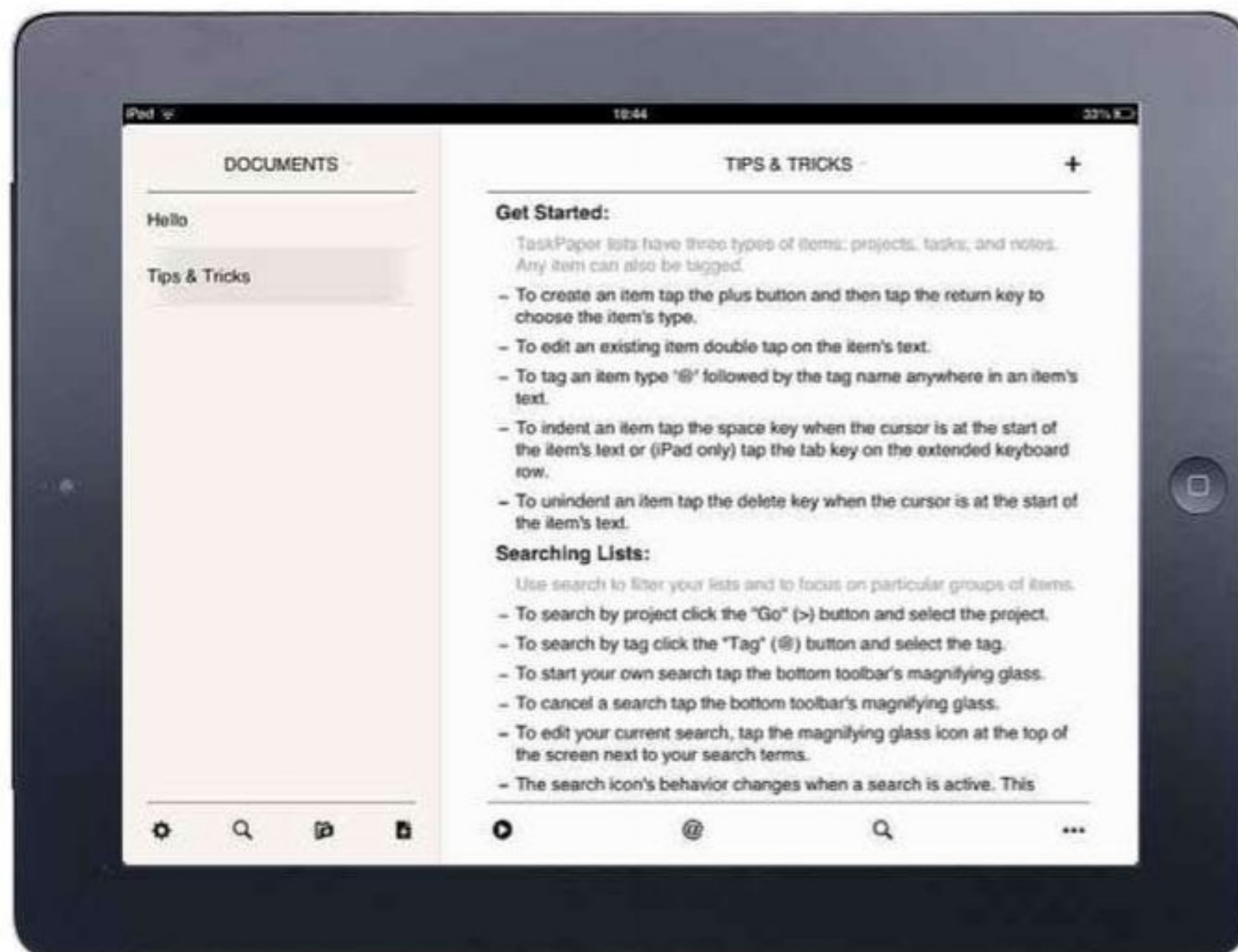
**Pro** Built-in browser • Dropbox • Markdown

**Con** No Simplenote syncing

**£2.49** inc VAT







# NoteTask

As its name suggests, NoteTask works in a very similar way to TaskPaper, mixing together regular long-form notes with bulleted lists of jobs you need to complete. The two even share a number of visual cues, including a knocked-back monochrome interface: compare their presentation in the screenshots left and below.

In NoteTask, you can embed tasks within your notes by preceding their titles with a dash or by tapping the empty box on the fifth line of the app's extended toolbar. When you've completed a task, either tap the checked box button or replace the dash with an exclamation point. You can then filter out all completed tasks to leave you with just your remaining chores.

There are two views to help here – the regular note view that sets out your words with the dashes and exclamation points in place, and a task view that gives you proper check boxes to tap as you work through your list. A digit beside the note title in the sidebar shows you how many incomplete task remain inside each one.

Each note naturally has its own title, which is listed in the sidebar at the left, as is the way with many of these apps. A clever touch is that any title you precede with an underscore ( \_ ) will be hidden by default, not appearing in the list. Swiping across the top row of the app reveals these invisible notes. While this isn't a difficult manoeuvre, it's not something that anyone unfamiliar with NoteTask would think to do, so it's a simple way of keeping private data away from prying eyes if you pass your iPad to someone else to show them a note.

# TaskPaper

More than a simple memo-jotting app, TaskPaper can handle notes, projects and tasks. Projects are effectively containers for your notes and tasks, and each document can hold several related projects. Tapping return on an empty line switches between the three content types so you don't need to pick them from a menu. Everything is synchronised through Dropbox.

Individual tasks can be tagged by adding a keyword preceded by @. There are two default tags in place when you first fire it up – @today and @done – and selecting them from the tag menu narrows down the contents of your note so that just those parts sporting those tags are displayed. You can quickly apply a @done tag to completed tasks by swiping through them, and add new tags, which will thereafter appear on the tag menu, by typing them in yourself.

This way of working with tags would allow you, for example, to index a series of notes from a conference by using @ tags for subjects and speaker names within each point, so you can quickly zero in on the part you need by picking the appropriate tags from the menu when you go back to review your notes.

There's a desktop version too, if you like this way of working and want to use it on your Mac, but it's fairly pricey at £1749.

TaskPaper takes a bit of learning, but it repays the effort many times over. It's inventive, useful and unique.

From App Store

Info [hogbaysoftware.com/products](http://hogbaysoftware.com/products)

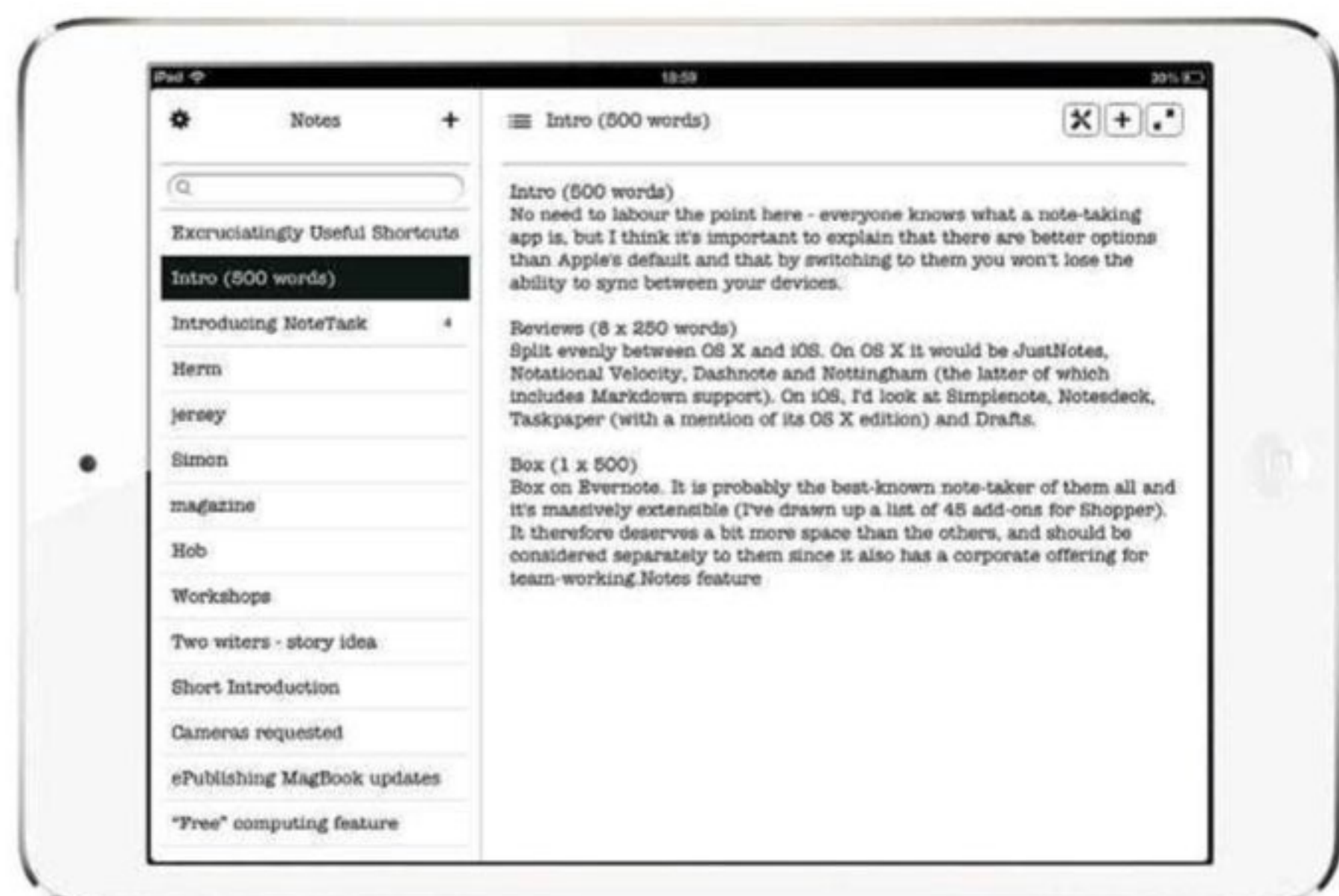
Pro Innovative workflow · Dropbox sync · Intelligent formatting

Con No Simplenote sync · Learning curve

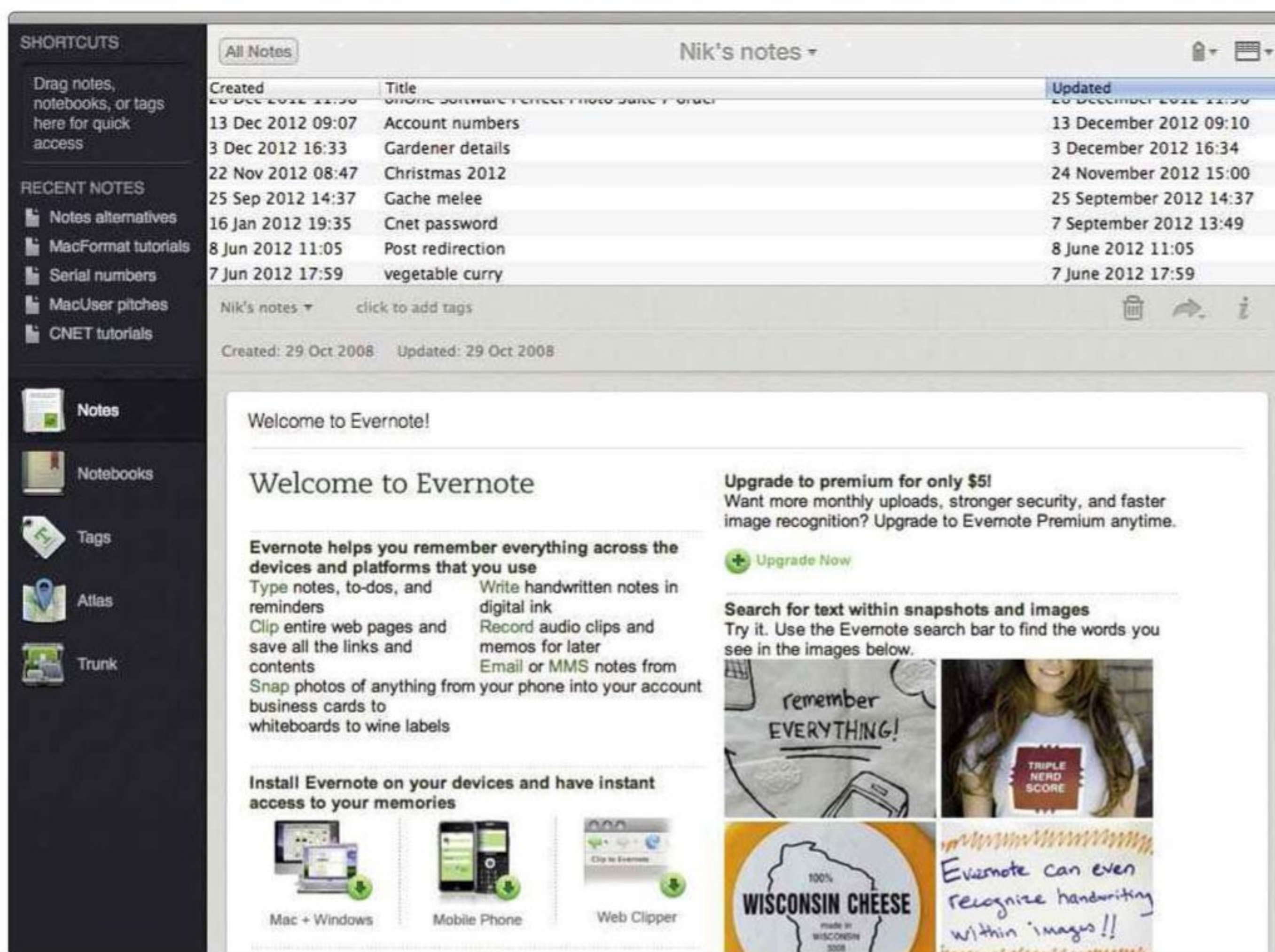
£2.99 inc VAT



To add a task, type a keyword with an @







You can set a passcode within the app to further protect your hidden notes if required. The only limitation you need to be aware of here is that the hidden notes are still synced in the regular manner, so they'll appear in plain text within any other Simplenote-compatible app that you choose to sync with.

**From** App Store

**Info** [codingrobots.com/notetask](http://codingrobots.com/notetask)

**Pro** Simplenote sync • Ability to hide individual notes from view

**Con** Free version lacks Simplenote support

**Free** or £1.99 with syncing



**Hidden notes can be revealed by swiping across the top of the app, but you can also set a passcode**

# Evernote

▲ No review of note-taking apps would be complete without mention of Evernote. What started out in 2008 as a simple online notebook has steadily grown into a suite of apps and tools with extensive third-party support. Clients are now available for iOS, OS X, Windows, Android, BlackBerry and other platforms.

The core app has been joined by dedicated tools for jotting notes about food and restaurants and for learning: Evernote Peek endearingly repurposes the flaps of an iPad Smart Cover to let you reveal first a clue, then the answer.

That Evernote has gone beyond being an app to become a platform in its own right is clear when you consider how many third-party apps use it for cloud storage. As well as Notesdeck, reviewed on [p44](#), Mac stalwarts like OCR tool Prizmo 2 and tutorial builder Clarify can harness Evernote as a virtual drive. So, too, can iOS tools like

Skitch, Evernote's own drawing and annotating utility, and the web reader Pocket.

In that respect, note-taking is just one of Evernote's features, and it's quite possible for you to make good use of an Evernote account without ever typing out a single note – particularly if you focus on its secondary function as a destination for web content clipped straight from your browser.

There's much to recommend Evernote aside from its generous personal and business plans, with full tagging support, extensive formatting options and the ability to create multiple notebooks so that→



EVERNOTE → you can corral your documents according to project or subject.

Each notebook you create can include several notes, which in turn can be location-stamped – and not only by iOS, but even on your Mac. As long as you've enabled Location Services in OS X's System Preferences and authorised Evernote, it can also geolocate your desktop and laptop notes by performing a reverse IP lookup on your network. Location-marked notes are added to your own personal Evernote Atlas and pinned on the map using flags.

If you're using Evernote to write a travel journal, or you want to only call up notes written at a particular field office, this lets you quickly filter out irrelevant files.

It's free to sign up for Evernote, and unless you're a particularly heavy user you shouldn't trip the bandwidth cap that limits you to 1GB of monthly uploads. If you do, upgrading to premium for £35 a year (or £4 a month) removes the restriction, hides the ads, lets you search through PDFs, and enables versioning so you can roll back notes to their previous states.

Evernote also has a business offering, at \$10 (about £6.50) per user per month, which lets you build a unified business library while maintaining private notebooks for individual users, each of whom is automatically upgraded to Evernote Premium in the process.

There's no reason why you shouldn't use Evernote in preference to any of the apps reviewed here, whether on iOS, OS X or both, and indeed on other platforms that you use. But in many instances a smaller, lighter, simpler client may turn out to be just as good for your purposes, and quite possibly better. On those criteria, Nottingham and Simplenote fit the bill.

**Evernote has gone beyond an app to become a platform in its own right**

# Missing pieces

In all that it does at the moment, Apple wants to blur the desktop–laptop–palm-top distinction by making our data ubiquitous. Whether we're using OS X or iOS, it wants us to see a common set of data in broadly similar apps, all neatly synced through iCloud. So it's no surprise that Notes syncs between devices in this way.

When it works, it's very, very good. It's fun, as well as useful, to see notes appearing on your iOS device almost as fast as you can type them in OS X. When it doesn't work, however, it's cause for concern. Some users have experienced notes disappearing altogether.

Fortunately, it's often possible to retrieve any data lost this way by digging through the Library folder on your Mac. Regardless of which platform you used to write them in the first place, as long as you had Notes set up to sync, your notes should have arrived here at some point.

In the Finder, hold the Alt (Option) key and click the Go menu to reveal the Library entry that Apple decided to hide away from Mountain Lion onwards. Click Library, then release the Alt key. From here, navigate to ~/Library/Containers/com.apple.Notes/Data/Library/Notes/ and you'll find your Notes data files. Open the NotesV1.storedata file using a plain text editor, such as TextEdit, or a coding app, such as TextWrangler, Coda or Espresso.

You'll have to scroll some way through the file to find your notes, each of which is stored in HTML format within the document. Each line within each note is stored in a separate DIV layer. Copy out the complete lost note, starting at the opening <html> tag and running through to the closing </html>, then either strip out the relevant data by hand or save the copied code in a new file with a .html extension.

Open this in a browser to recreate the note with the hard returns you used when you originally wrote it. You can copy and paste it from here to an alternative app or, if you choose, back into Notes. ■



## Will it sync?

	OS X apps			
	Nottingham	Notational Velocity	Justnotes	Notesdeck
iOS apps				
<b>Simplenote</b>	via Simplenote	via Simplenote	via Simplenote	via Simplenote
<b>WriteUp</b>	via Dropbox	✗	via Dropbox	via Dropbox
<b>TaskPaper</b>	via Dropbox	✗	via Dropbox	via Dropbox *
<b>NoteTask</b>	via Simplenote	via Simplenote	via Simplenote	via Simplenote

\*TaskPaper note extensions must be changed from .taskpaper to .txt in TaskPaper Settings for synced notes to be seen by Notesdeck



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# Praktik

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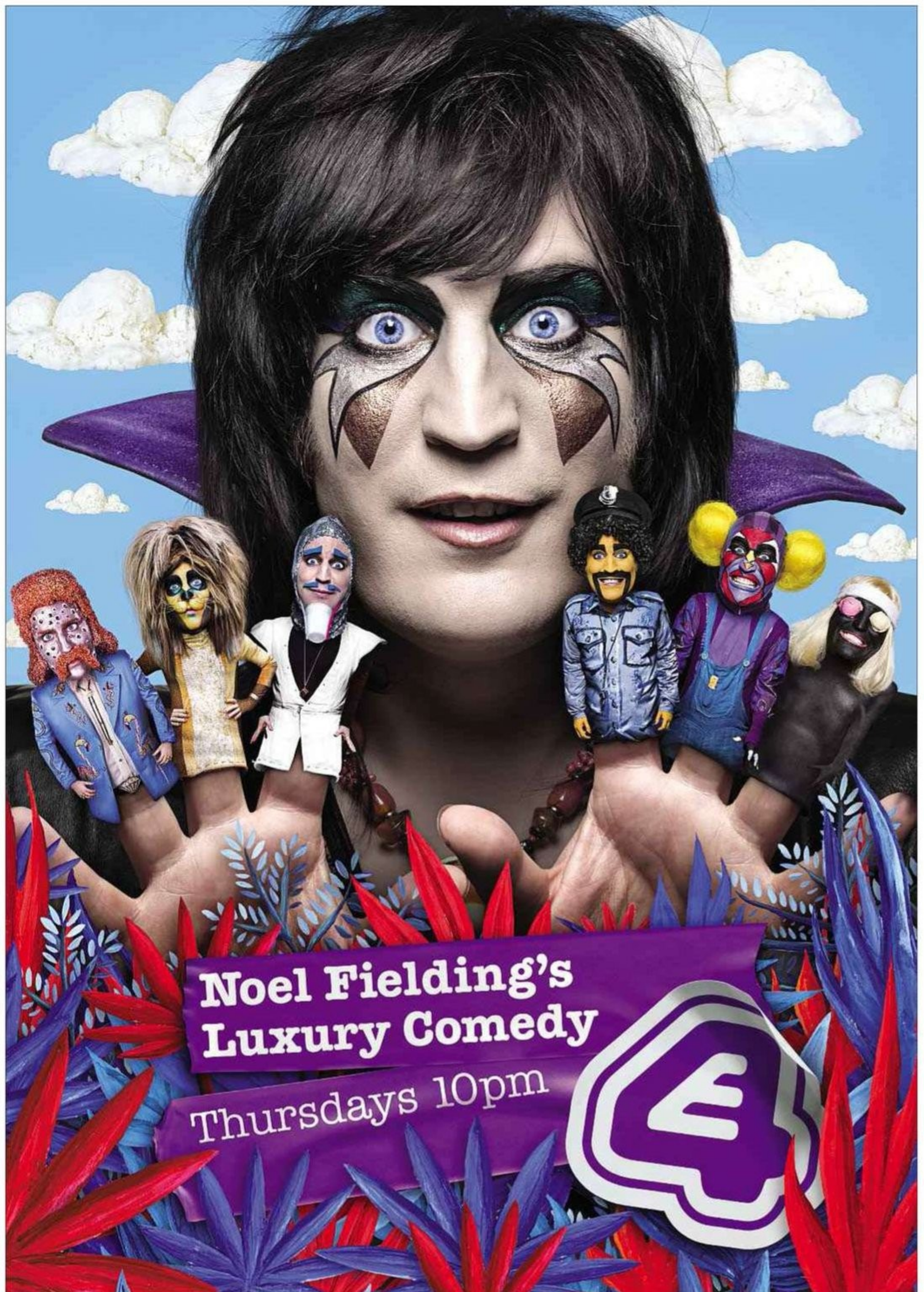


IMAGE DAVE BROWN APEINC.CO.UK • 'NOEL FIELDING'S LUXURY COMEDY'

**Noel Fielding's  
Luxury Comedy**  
Thursdays 10pm





# Portfolio

**NAME** Dave Brown  
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**EMAIL** [dave@apeinc.co.uk](mailto:dave@apeinc.co.uk)  
**TWITTER** @jimmylazars



**DAVE BROWN** is a London-based graphic designer and photographer with more than 18 years' experience in the creative industry. He set up APE in 2007, and his clients include FIFA, the BBC, Nike, Universal, The Mighty Boosh, Fearne Cotton and Jimmy Carr. His recent Tough Crowd comedian portraits were exhibited at The Strand Gallery to critical acclaim.

**MU** What was your first Mac and what model are you currently using?

**DB** My first Mac was a second-hand LC III. I loved it, even though it looked like a pizza box and took about an hour to open a Word document. I'm now using a 24in iMac Core 2 Duo at my studio, but I also have a 15in MacBook Pro for remote work and presentations. They've served me well, but an upgrade is on the horizon...

**What equipment do you use apart from your Mac?**

I have a Canon 7D DSLR and a GoPro Hero 2 for photography and video work. I also use a Wacom Intuos graphics tablet, an EIZO ColourEdge display, a Canon CanoScan, an HP inkjet printer for everyday use and an Epson Stylus Photo R3000 A3+ photo printer.

**What's your favourite application and what was the first software you used?**

My favourite program would have to be Photoshop, with Illustrator taking silver and InDesign bronze. Most of my work includes all three working as a team.

The first program I used was Aldus FreeHand. When I was starting out, there was a FreeHand vs Illustrator war going on, so it was frustrating having to learn them both and switch between them as you went from college to uni and company to company.

**Can you offer any tips for success?**

Try to make everything you do build from a single idea. Never stop thinking, looking or learning. Have respect and learn from those you admire. Stay in touch with technology, utilise social media and self

promote wherever possible. Don't get stuck at your desk staring into your screen – your Mac isn't the only answer to a creative brief. If it's not working, shut down, get up, and go and try another medium, technique or environment. Research and inspiration comes from more than just the internet – it amazes me how many students and young designers don't realise this. Never burn bridges, always show willing, never let your ego get in the way, love what you do and, most importantly, make lots of tea.

**As a child, what did you want to be when you grew up?**

I can remember wanting to be an architect, and I used to draw buildings all the time, but then I found out I needed to be good at maths so that went out of the window pretty quickly!

**How did you get your first big break?**

John Bateson from award-winning London agency Roundel lectured at our college. He offered me my first work placement and that was my first experience of agency life. Working there definitely gave me the confidence, CV and contacts to go on.

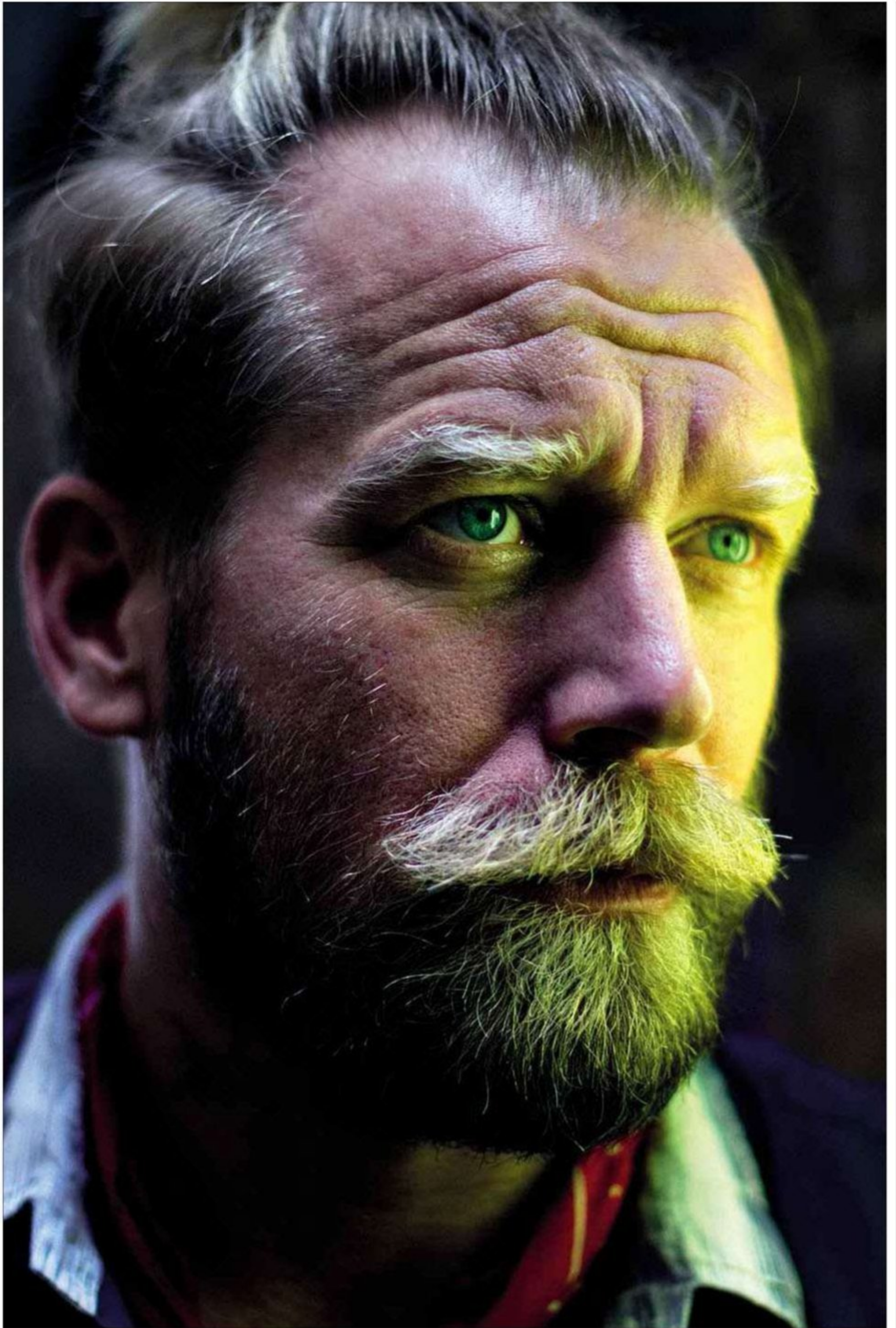
**What or who are your influences and inspiration?**

I try to get inspiration from anything and everything. Most of my ideas come when walking along the street, on public transport or that ten minutes before I go to sleep. I always carry a notebook and pen, as you may think you'll remember those ideas, but you never do and that hurts like hell.

In terms of influential and inspirational people, I get great inspiration from my friends and colleagues. →

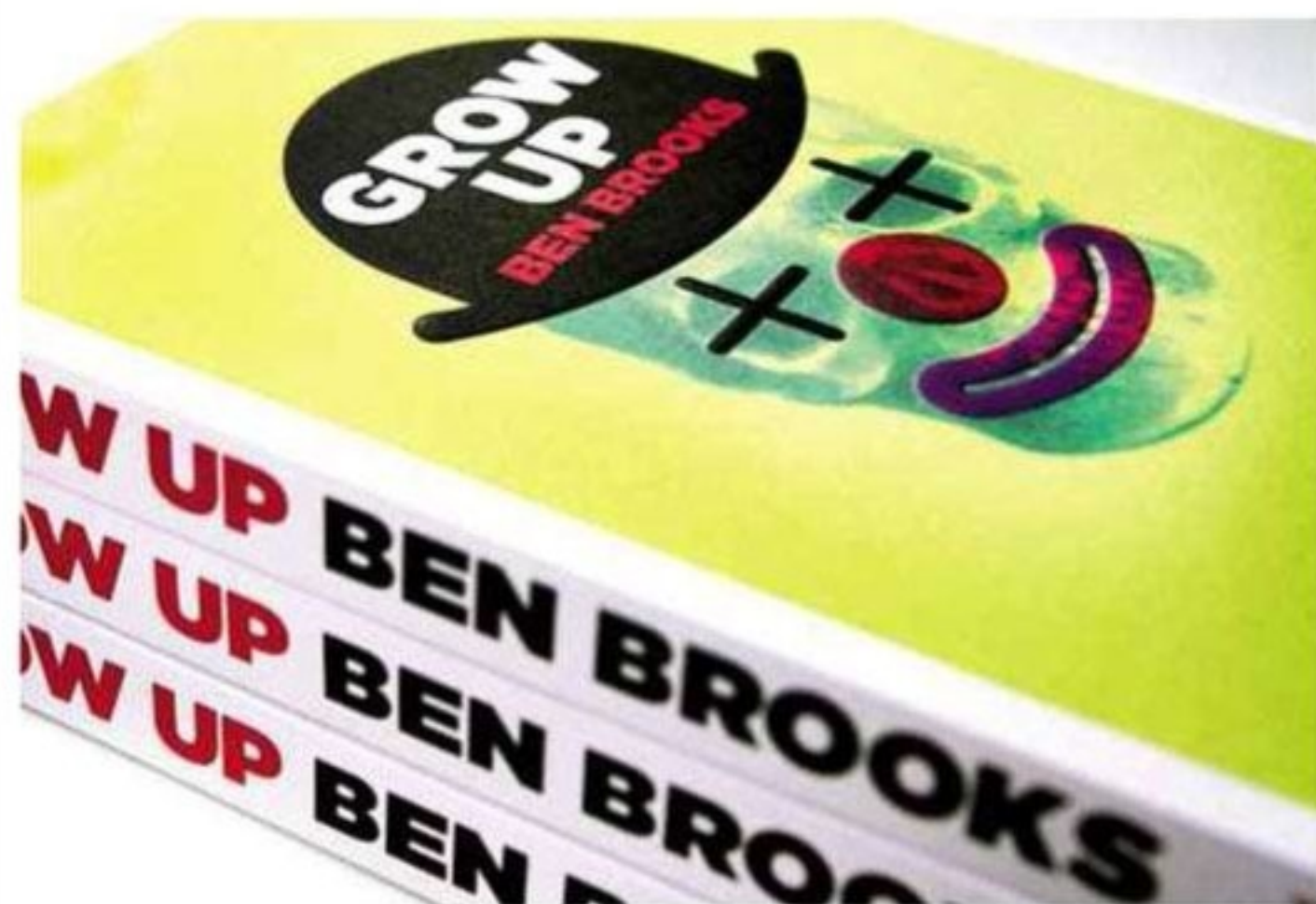


2





BROWN →



3

I'm lucky to occupy a studio space with two great illustrators in a building full of amazing artists.

**What mistakes have you learned from?**

It's better to fail and regret having done something than never to have done it at all.

**What's your ideal project?**

One with a great, respectful client, a decent budget and a realistic schedule.

**Tell us something good...**

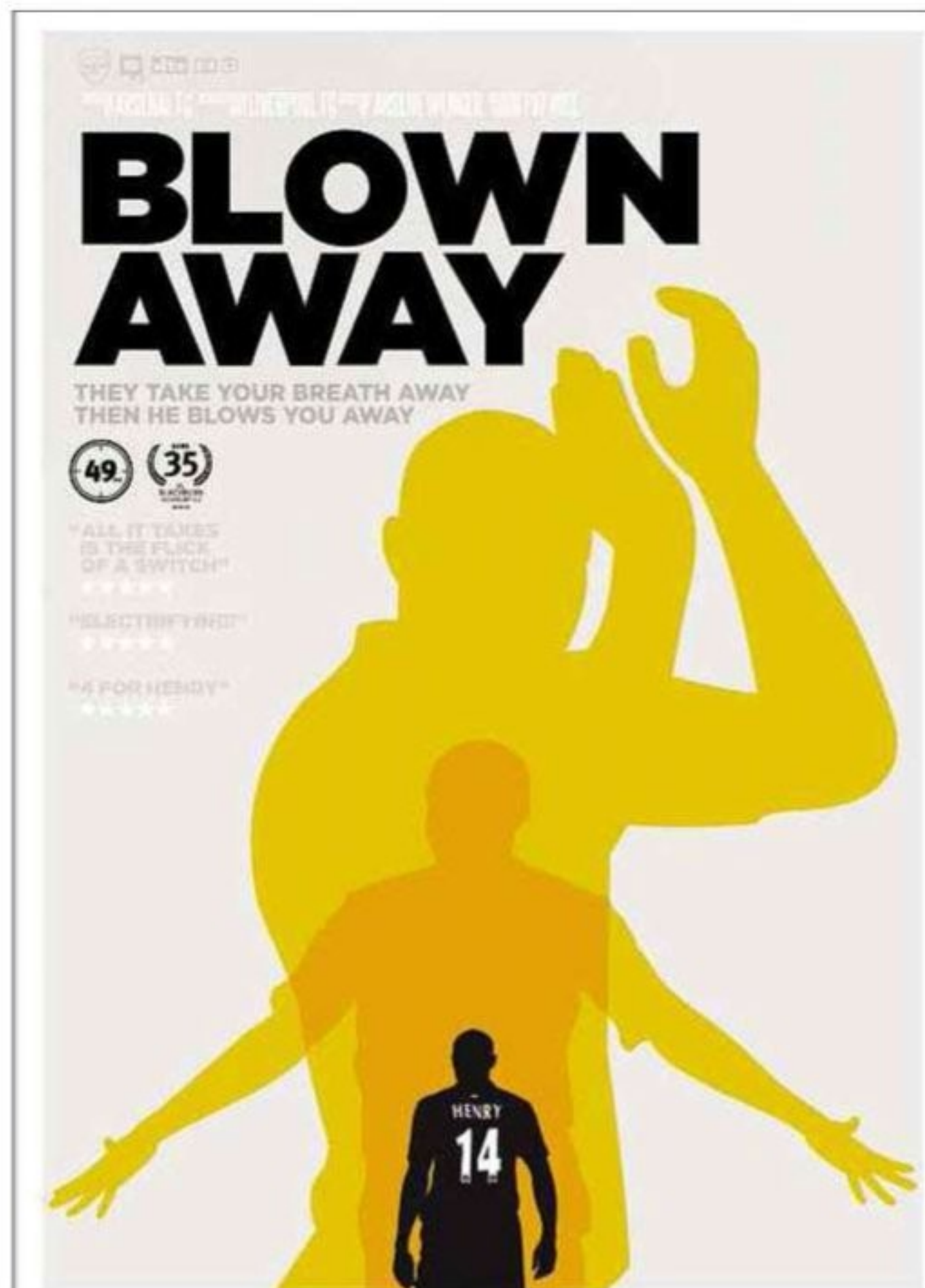
Sharks are less dangerous than cows.

**What's your favourite gadget and why?**

It has to be my iPhone: music, internet, email, camera, recording device, games console, apps, sat nav... oh, and a phone too! I'd be totally lost without it.

**Talk us through your work.**

**1** (Opening spread) 'Noel Fielding's Luxury Comedy'. This was for Channel 4. The idea of Noel controlling his characters as finger puppets was not only quirky and colourful, but it also gave an insight into what you could expect in the show. I shot Noel in a studio



4

as himself, then I shot his hands up in place wearing the cut-off fingers from gloves as a positional for the puppets. I then shot him in the same lighting as each of the characters and embarked on a huge Photoshop retouching exercise to bring it all together. The foliage was hand-painted by illustrator Ivana Zorn, scanned in, cut out and arranged in Photoshop. The clouds were mashed potato, shot with a DSLR and retouched in Photoshop.

**2** 'Tony Law' (Previous spread). Part of my Tough Crowd portraits of comedians recalling their worst moments. This shot of Tony was improvised after a gig on the fire escape behind a venue in Edinburgh. Using a Canon 7D with 50mm Ultrasonic Canon lens, I got Tony to stand next to a very yellow wall-mounted light, the late afternoon sun blending perfectly with the artificial light and Tony's magnificent facial hair.



Key (34) is ideal. He is a poet who favours dark suits, lager and long hot baths. He works on BBC Four in Charlie Brooker's *Newsnight* and on Radio 4, doing his late night poetry shows. In 2009 he won the Edinburgh Comedy Award for his poetical rant *The Shetland* and has filmed some of his verse in black and white to overwhelming critical approval. This is his most comprehensive collection of poems to date.

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AN OX?  
AN OX?  
AN OX?  
AN OX?  
I COULD  
BARELY  
CONCEAL MY  
INCREDULITY.  
WHY  
HAD  
SHE  
BOUGHT  
ME AN  
OX?

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"All I hate writing these. My publisher, a man in his thirties, asked for something from me and I (contractually) had to oblige but really I found the whole thing pretty absurd. To write about yourself as if you're a real big name so you can sell a few books isn't a great way to spend a trade journey. It feels cheap and my-hand. If it were down to me, which it isn't (contractually), I would have either had nothing on the back or just something simple like a picture of a bee. But that wouldn't cut it with the man in his thirties. I can just imagine him using phrases like 'why do you suppose we have a bee on the back?' and 'read your contract, you have to deliver eggs for the back, not suggest an illustration'. If he'd just stop to actually think about it he would see that this part of the book is, nine times out of ten, flush against a surface as there's really no need to dig it up with cheap cutters making dates about my legitimacy to write a book. But as topics such as this I know there's more or less no talking to the guy because he has his 'way of doing things' and because I am under contract (contractually) to do what he says.

You are currently clutching Key's most comprehensive collection of postcards put together to date. The sheer weight of the book is testament to this comprehensiveness. Of course it is lighter than something like a Brian Fridge or a fat guy. But as a book, you will note, it's of a nice weight. It's full of poems by Key (mostly winning) primarily about love, sex, dreams, death and food (strawberries, bones etc). The publishing of the book is no way tied in with things like 'demand' or 'demand' but is more a result of Key having a full English breakfast with the right person at the right time. If you are still in the shop then just flick through and check you like it - a lot of people don't - and if it's not for you then put it back down and buy some Kookin or see if Mipola Lawson's got a new cookbook out with her curves played over the pages. Key is not the sort of person to take offence if you don't buy his book but instead replace it as its shelf or leafy slot it between a couple of DDC Phones or dump it by a potted plant next to the till. Key's just happy that someone has bothered to touch it. That is enough for Key (Newsnight).



5

6

3 'Grow Up'. This was the cover design for Ben Brooks' novel *Grow Up*, published by Canongate. The book is very dark, raw and edgy, with lots of black comedy. I wanted to convey the two sides of the main character, so I shot a small skull I'd seen at friend's, retouched it in Photoshop and brought it into Illustrator to colour and overlay the vector clown graphics to give it that *Clockwork Orange* feel.

4 'Arsenal Film Poster'. Working with Arsenal and London agency 20:20, this was one of a series of posters for Arsenal's members club lounge at the Emirates stadium. The brief was to create mock film posters of memorable moments during Arsenal's unbeaten 49-match run in the Premier League.

5 'The Incomplete Tim Key'. This was another commission for Canongate Publishing. The clue is in the title of the book. I shot Tim in a photo

studio looking normal, emotionless and smartly dressed, but wearing only one shoe - basically incomplete. The typeface was a very old font I found in a vintage typography book, which I scanned in and painstakingly typeset.

6 'The Mighty Boosh Live'. This piece was a commission for Universal. The neon representation of the The Boosh's monkey face logo and typography were created as vectors in Illustrator and then taken into Cinema 4D by Nigel Coan of animation agency Nipple. This was to create the unlit neon glass tubing effect, then the glow, lighting and reflections. It was all then taken back into Photoshop for further retouching and colouring. The final artwork was put together in InDesign, and all the neon was printed with a spot varnish to enhance the glass effect. The 3D files were then used to create animated neon in the DVD menus (see apeinc.co.uk). ■





**DANIEL BENNEWORTH-GRAY**  
is a designer and writer. He  
blogs at [danielgray.com](http://danielgray.com).

## Daniel Benneworth-Gray Comics have taken that 'sod the plot, here are the toys' mentality and gone crazy with it. Comics are broken.

IN THE MID-80S, suits from Marvel Comics and Mattel studied their latest focus group research and noticed that children reacted positively to the words 'wars' and 'secrets'. This played into the toy manufacturer's plans to license not just the publisher's characters, but to market fortresses and vehicle and weapons. All they need was a narrative to hook the playsets onto. The story was secondary, merely a showcase for the toys. Lots of expensive toys.

And thus was born the most cynical and influential comic series of the time, the transparently committee-made and catchily titled Marvel Super Heroes Secret Wars. And furtherly thus, a very small me was sucked into the world of comics via the toy pages of the Argos catalogue.

In the far too many years since then, my comic reading has taken me in many directions: the Lovecraftian horror of Mike Mignola; the diagrammatic ennui of Chris Ware; the Belgian investigative journalism capers of Hergé. They all challenge the misconception that comics are just about men in tights (misconceived by the same people who think the term 'graphic novel' isn't incredibly condescending). To be honest, though, it's those formative fully poseable Marvel heroes that I always return to. Nothing wrong with tights.

I only return in short bursts, though. After a while, I give up and go back to reading boring old books without pictures (aka graphicless comics). Why? Because the comics industry has gone out of its way to set up as many barriers as possible to casual readers, and even treats dedicated ones with contempt. Comics have taken that 'sod the plot, here are the toys' mentality and gone crazy with it. Comics are broken.

Let's say you've just been to see the latest Batman film. 'Well, that was incomprehensible but tolerable,' you muse. 'I'd like to give one of these comic books a try.' And so begins an epic quest to find the one shop in your town that might stock what you assume would be a comic called Batman.

But, oh no. Once you're there, you realise things aren't that simple. DC Comics doesn't just publish one must-buy

Batman comic, it publishes... well, I don't think even *they* know how many there are any more. The current list of Batman-related titles includes: Batman; Batman and Robin; Batman The Dark Knight; Legends of the Dark Knight; Batgirl; Batwoman; Batwing; Batman: Arkham Unhinged; Batman Li'l Gotham; Batman Beyond Unlimited; Birds of Prey; Catwoman; Nightwing; and Batman Incorporated.

In each of these, Batman may or may not be the alter ego of Bruce Wayne. Maybe it's someone else. Or maybe he's dead this week. Or maybe it's actually one of several Robins. Or – let's be honest, who cares at this point, because DC Comics certainly doesn't – maybe it's Aunt Harriet.

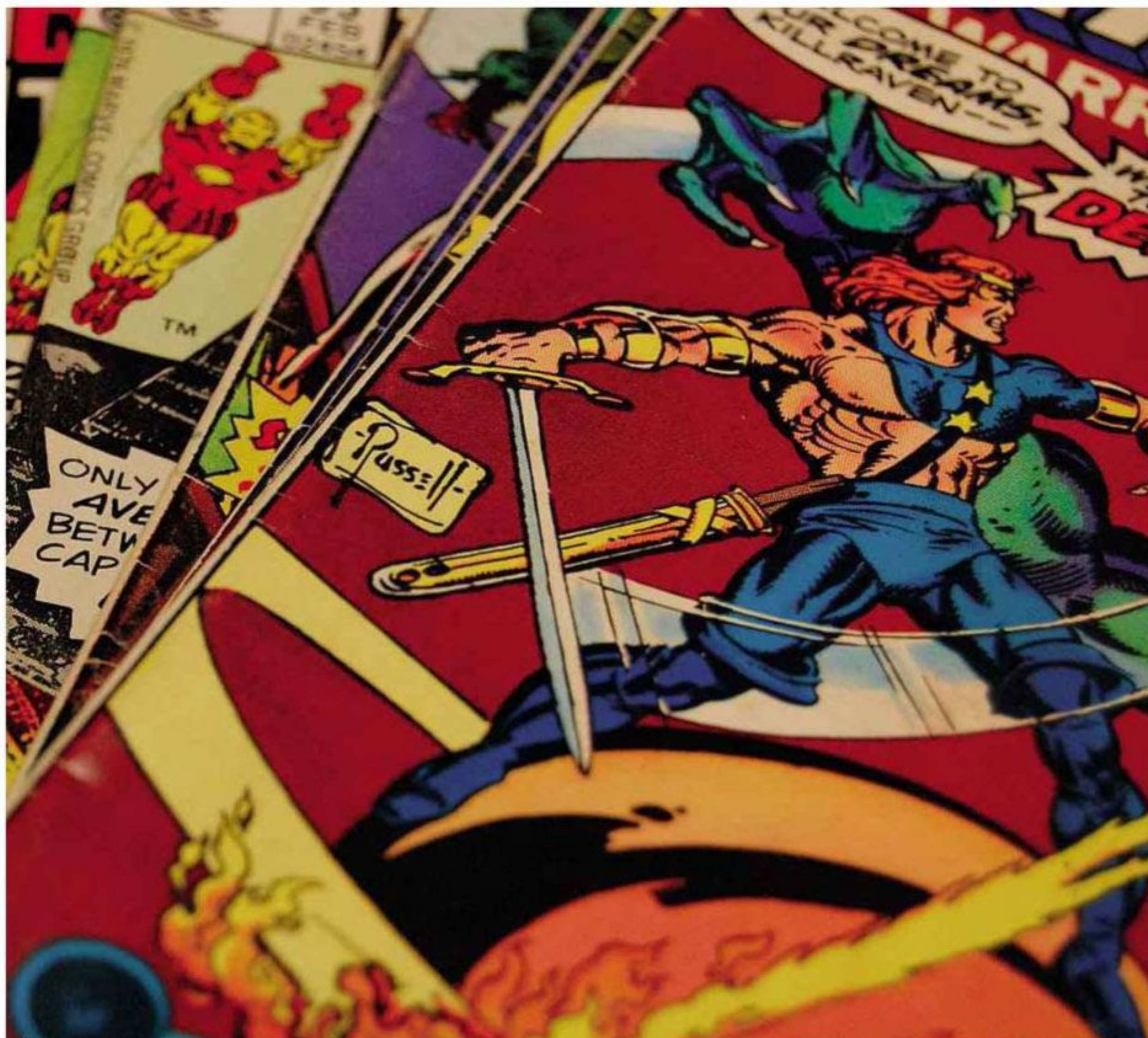
(Incidentally, one of the other smaller ways that comics are broken: 'DC Comics'. That'd be Detective Comics Comics. That's what it calls itself now, as if it has simply forgotten what its initials are for. And to make matters worse, it actually publishes a comic called Detective Comics. That's right, Detective Comics Comics' comic 'Detective Comics'. I now have a nosebleed.)

**WHICHEVER ISSUE YOU** buy will be most likely be in the middle of an elaborate story arc that crosses over with countless other comics and refer to things happening in parallel universes and alternate realities – debris from the frequent cack-handed tidying up of loose ends created by interminable crossovers and contradictory stories.

The problem is, comics are a minor interest for DC and Marvel now. Without doubt, a lot of skill and love goes into their creation, but these publishers are subsidiaries of mega-corporations now. Films and television and merchandise are what it's all about now. It all comes back round to selling expensive toys.

So when I do occasionally pick up comics, I tend to go off them very quickly – until now, that is. My infinitely wise wife bought me a subscription to Marvel Unlimited. Unlike the pay-per-issue approach of the Comixology-based apps





***Unlike the pay-per-issue approach of the Comixology-based apps, Marvel Unlimited offers thousands of back issues in an all-you-can-eat deal. It's flipping brilliant***

already used by Marvel and DC, this offers thousands of back issues in an all-you-can-eat deal. You can only download six issues at a time – it's one of those buffets where they give you impractical small plates – but that's minor quibble. Because it's flipping brilliant. I can avoid the rigmarole of actually going comic shopping! I can give up on an issue after two pages if I please! I can catch up on whatever colour the Hulk is these days!

Admittedly, it can be a bit slow and there's some of the usual 1.0 flakiness. Plus there's no way I'm ever going to like the Smart Panels option (imagine reading with a responsible

adult who points at the pictures and traces the words with their finger as they read out loud). But, by golly, it's a great app. Availability, choice, simplicity. Putting the reader first, not corporate character licensing opportunities.

'Spotify for comics' may be oversimplifying it, but you get the idea. It's a brave move for a publisher to open up a massive chunk of its back catalogue in such a way, and it'll be interesting to see if others follow suit. Not just comics, either – imagine a subscription-based Penguin app. Or, thinking sideways, how about Star Wars Unlimited: all the films, automatically updated with all the latest tweaks, re-jiggifications and commentaries?

Anyway, I never thought I'd say this, but I'd be quite happy to only read comics on screen from now on (except Mignola's Hellboy – I need those deep inky blacks). Marvel Unlimited has not only converted me to digital publishing, it's restored my faith in comics. Right now, though, I'm sitting with my iPad, transported back to the mid-80s. I'm re-reading Mattel Presents Marvel Super Heroes Secret Wars In All Good Toy Shops. It's awful. It's amazing. ■



# TECHNIK

'The presentation's images still had the stock photo company's watermark' → 70



**STEVE CAPLIN** is a designer and illustrator working for a range of national newspapers. His best-selling *How to Cheat in Photoshop*, now in a sixth edition, is published by Focal Press.

## PROTECTION RACKET

*A barrier needn't always shout 'keep out' – it can be a thing of beauty*

GRAPHIC DESIGN

EVEN THE MOST unobservant shopper will have noticed the words 'Decus et tutamen' engraved around the edge of the British £1 coin. As with most Latin phrases, they'll probably assume it's just another example of outmoded chivalry or a hankering for a colonial past. What's interesting about this quotation, however, is that it refers only to itself **1**. The motto means 'an ornament and a safeguard', and was first proposed by the writer John Evelyn in 1662. He suggested it to Charles II as a way of curtailing the habit of 'clipping' – that is, the act of shaving off the edges of valuable coins such as the five guinea piece (which was made of solid gold) and forging new coins from the scrapings. As Evelyn argued, if the lettering remained visible, you'd know the coin hadn't been clipped.

Although the idea of using this technique to protect the coinage was a new one, the phrase itself predates Evelyn by 17 centuries. It comes from Virgil's *Aeneid*, and is used to describe breastplate armour decorated with gold. The irony is that since the coins are no longer made of valuable metals, clipping would be pointless, so the motto is now purely decorative.

We live in a society in which we increasingly feel the need to fence ourselves in, to protect ourselves against both external marauders and misbehaving locals. And so we erect fences to keep those outside from coming inside, often piling on extra security measures as a demonstration of our determination for security **2**. Security doesn't have to be so stark. The gates

outside Buckingham Palace, for instance, serve much the same purpose as barbed wire, but with rather more elegance and style **3**. Although they don't look it, they would be extremely tricky to climb, with spacing just too narrow to allow a foot to be placed between the uprights, and painful spikes to deter sitting on the top.

Just around the corner, the southern entrance to London's Hyde Park is sealed at night with a set of gates commissioned to celebrate the Queen Mother's 90th birthday **4**. They're intricate and delicately woven pieces of ironwork, which superficially bear no resemblance to the stark gates they replaced, yet they perform exactly the same function. Just because an object is protective, there's no reason why it shouldn't be decorative as well.

It's up to the designer, and a matter of personal taste, whether an object primarily promotes its security or its decoration. This iPhone case by Speck is tough and rugged, and makes no bones about the fact that it's designed purely to offer the maximum protection possible **5**. It's a strong, masculine design that's more likely to be purchased by readers of Andy McNab novels than by SAS parachutists. But in terms of sheer functionality, it offers only slightly more protection than this distinctly un-masculine affair **6**. And if this is to your taste, you'll be pleased to know that aliexpress.com will sell you one for just £4.50 (sold in US dollars at \$6.99) plus shipping. →





1



2



3



4



5



6





7



8



9



10

**DESIGN FOR PROTECTION** → When the need for a protective element vanishes after having been made obsolete, we often still hold onto the idea because of the decorative value it has accrued. Before the days of Sellotape and Pritt sticks, it was common practice to tie up brown paper parcels with string **7**. This was a purely utilitarian procedure, whose purpose was solely to prevent the paper from opening up in transit. However, untying the string was a delaying tactic that served to postpone the act of discovering the parcel's contents, thereby stretching out the moment of anticipation.

When giving a present, the string has been replaced by decorative ribbon that serves no practical purpose, but represents the string and it's there to provide the same frisson of anticipation **8**. In fact, even the wrapping paper itself is now purely decorative, since such gifts are always delivered by hand and there's no need for a covering to protect the content in transit. (There was a time, incidentally, when one would draw string on a brown paper parcel that lacked it to indicate that it should be handled at parcel post rate.)

Security measures can be blatant, as in the case of the barbed wire, which makes a bold statement of intent. Or it can be soft and flowery, while at the same time clearly affirming its purpose, such as the Queen Mother's Gates. The best and most effective security measures, though, are those that we don't even realise are security.

Security bollards have recently been erected all around the entrances to the revamped Kings Cross and St Pancras stations in London **9**. The shiny stainless steel objects are certainly an improvement on the old concrete bollards we used to see, but they're still clearly there to prevent people driving into the stations (whether accidentally, to park or for terrorist purposes). As discreet as they are, they remain a visible barrier.

Compare the Kings Cross bollards to one of the most compelling examples of surreptitious security, outside the main entrance to the Emirates football ground, home of Premier League team Arsenal **10**. Completed in 2006, the stadium announced itself to the football-going public with ten-foot-high concrete letters proclaiming the name of the team. The sign was the solution to providing a wide, open entrance to the ground, yet at the same time preventing over-enthusiastic fans from driving their cars into the stadium. Passers-by can't fail to be impressed by this branding, and visiting fans and players must feel suitably daunted by the sheer scale of the text. What's not obvious at a glance is that it's really just a giant barrier, securely cordoning off the front of the plaza and perhaps helping to break up surging crowds.

In most aspects of life, the best security tends to be the kind that doesn't look like security. If it can serve its purpose without appearing aggressive or belligerent, then half the battle is already won. ■



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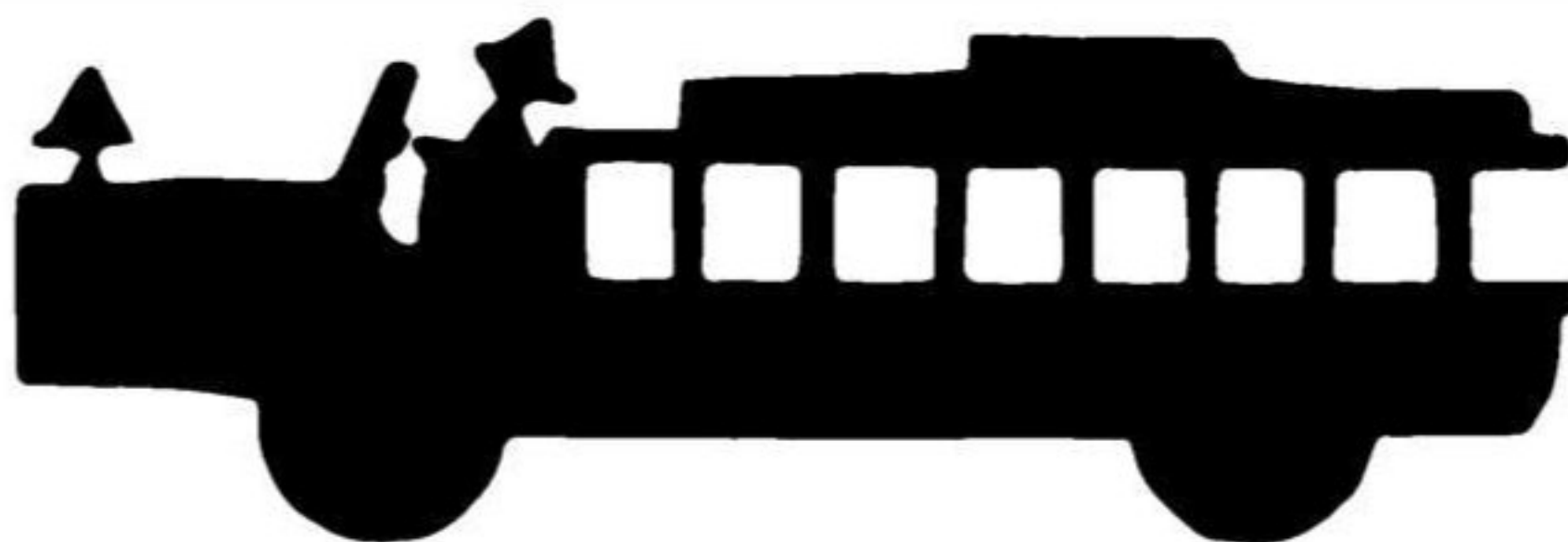
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→ **Fetch the engine**

This early 20th century silhouette pictogram manages to evoke a specific time period while still managing to get the point across



**KEITH MARTIN** is MacUser's technical editor. He's been using Macs since the beginning, and has a background in all areas of graphic and interactive design.

## SPARE US THE DETAILS

*If you want a graphic to stand out, why not try it as a silhouette?*

### DESIGN PRACTICE

SILHOUETTES ARE THE icons of the illustration world. They take something and boil it down to the utmost simplicity by removing all shading, hue and inner detail.

Silhouettes are popular in clip art collections because they can get an idea across without being too specific and are relatively easy to make. I know the term 'clip art' makes most of us cringe in horror. Generally that's fair enough, but sometimes, just sometimes, you'll find examples that don't make you bring up your breakfast. While researching early 20th century infographics, I found a collection of Dover clip art pictogram graphics. What struck me about them was how they seemed to convey a strong sense of 1920s or 1930s illustration and cartoon styling, despite being largely made from silhouettes and relatively simple shapes. The period feel wasn't hard to explain: they're royalty-free, scanned from out-of-copyright originals and supplied in a printed book and on CD.

It was curious how a particular twist of line could evoke such a specific time period, and how the pictograms managed at the same time to get the point across, over and over. It wasn't totally successful – there's a graphic of a vehicle that I think is an old-fashioned fire engine, although I can't be sure – but the majority of the images do their job well. In a sense, this is part of what makes a good silhouette: the ability to express feelings and even eras with just the shape of the filled-in outlines. It's the artistic interpretation of something

rather than literally just the result of putting a spotlight behind it and taking a snap. That's going to have all sorts of distracting extras such as unruly hair, distracting shirt collars and so on.

The silhouette name comes from a very specific source. In 1759, the French finance minister, Étienne de Silhouette, imposed extreme austere economic restrictions on the French people. His name quickly came to mean something done on the cheap, and these 'outline portraits' were far cheaper than having a regular illustration or painting made. These were highly popular in the 18th and 19th centuries until the development of photography made them fall out of vogue, but as an artwork style it is, unsurprisingly, truly ancient: in 79AD Pliny the Elder wrote that its origins came from hundreds or possibly thousands of years earlier, from tracing lines around a person's shadow. I'm a little skeptical of whether that's really how it began, though. Anyway, from simple origins, through the cut card portraits of the 18th century, right through to infographic signage in airports and on road signs, the silhouette idea has been used over and over.

Okay, the pictograms in the clip art collection I found were generally not pure silhouettes – most have extra bits of detail within the shape to help boost quick recognition. Despite that, the basic idea of a simple one-colour graphic is the same. These are suitable for the craft end of the different kinds of printing: wood and linocut, letterpress and screen print. →





#### ↑ ↑ Get the message

There's no doubt what these icons stand for: simplicity is key to good silhouette icon design

#### ↓ Groovy, baby

Okay, simplicity isn't for everyone, as evidenced by this 1780 cut-paper image of Goethe contemplating mortality



#### Hot off the press

Above, we've put together some icons showing how MacUser is, er, put together. The editor gets a tip-off, the writer bangs out some copy, the designer gets unwanted output from everyone, production staff work late, the editor nit-picks and you get a perfect copy of MacUser. Artistic licence liberally applied, naturally





↑ **Back in black** Apple employed dramatic use of silhouettes in its iPod ad campaign. However, these silhouettes did pick out some detail – for example, the earrings, bracelets and tiny parts of the clothing



**SILHOUETTES** → Used on their own, pictograms and silhouettes normally represent a single concept or thing: telephone, cash register, toilets, Goethe contemplating mortality as represented by a bust on a tomb... well, they don't all have to be low-brow! Apple's iPod ads from a few years ago used silhouettes to great effect, and the use of the black-filled figure and the white earphones gave the product an iconic feel. Those ads were slightly more than pure silhouettes, too, as there was the odd hint of something – clothing, earring – that made the figures feel slightly more solid and real. Never anything from the face, though; always a relatively generic bit of detail.

Making a photographic silhouette is so simple that I'm almost embarrassed to explain it, but here it is in brief: back-light your subject against a light background so you see as little as possible of the features, choose an angle that shows something understandable in the profile, expose for the bright backdrop rather than the shadowed subject, and snap. Use Photoshop's Threshold or Levels controls to maximise contrast, then tidy up the crap that has probably been left in and around the sorta-silhouette. Or throw it into Illustrator and do your own manual trace over the image. This will take longer than just pumping up the photo's contrast, but you'll get a much more controlled, clean result.

How much you abstract the shape really depends on how you want to use it. Those cut-paper portraits of the 18th and

19th centuries relied on replicating specific details that made the image quite recognisable. Many of them were kept in lockets as reminders of loved ones – the equivalent of carrying a photo in your wallet, I suppose – so they were personal and very specific. Most of the silhouette graphics from the 20th century through to today are more generic. They're less about individual representation and more about abstract messages. They may, however, be derived from very specific sources. Margaret Calvert is the design name behind some of the best-known road sign graphics, including the Men At Work sign. (Or 'man struggling with umbrella' as I liked to call it when I was a smartass kid.) Her Children Crossing road sign was based on a photo of herself as a child, crossing the road with a younger boy, and the cow in the Farm Animals warning sign was drawn from an image of a cow named Patience that she knew when she was small.

The key to a successful silhouette graphic lies in simplicity. Whether you're going for abstract geometric elements or subtle and naturalistic lines, aim to do the whole thing with no additional detail, no shading or highlight within the figure, and only add that towards the end if it's absolutely essential. It's the kind of thing that's good to practise through doodling, too, so grab a sketchbook and a pencil and start filling pages with attempts. You can move your ideas to your Mac later for polishing, but it'll be faster and more freeing to start on paper. ■





**WILL HEAD** is co-founder and director of Fixation Video, a production company that specialises in making video content for the web.



↑ **Supporting cast** Magic Lantern was originally developed for the Canon 5D Mark II, but the latest version runs on the 6D, 50D, 60D (pictured here), 500D, 550D and 600D

## JUST THE TRICK

*If you're finding your DSLR wanting, it's time to fire up Magic Lantern*

### VIDEOGRAPHY

THERE IS NO such thing as the perfect video camera. Each model has its strengths and weaknesses, outstanding features and frustrating annoyances. To exacerbate matters, each project is different, which means that a camera that's perfect for one can be totally unsuitable for another. Some cameras are pretty good all-rounders and work well across a variety of projects, but it's still important to know what they don't do well so you can work around these flaws.

Camera restrictions usually stem from hardware limitations: manufacturers have to balance the cost of the components against the asking price of the camera, while also covering the costs of research and development. This means many limitations are in place because of the components that were used during construction. The better the components, the fewer hardware restrictions you'll run into – but equally, the higher the price tag will be.

Sometimes, however, the limitations are software-based, either because the manufacturer didn't design the camera with a professional market in mind or it was pushing buyers towards more expensive equipment in its range. This is especially frustrating when the camera is capable of a particular function, but the software hasn't enabled it. Shortcomings like this can sometimes be fixed with future firmware updates, but you're at the mercy of the manufacturer: it could decide the development and testing isn't worth doing, which means you're stuck.

Happily, though, third parties sometimes take matters into their own hands, producing unofficial tweaks to cameras that massively increase their abilities. The Panasonic GH2, for example, is a great camera out of the box, but with hacked firmware it can record at much higher bit rates than the stock software allows, increasing the quality of the final files.

Perhaps the most advanced firmware hack available is the Magic Lantern modification for Canon's DSLR models ([magiclantern.fm](http://magiclantern.fm)). As well as allowing higher bit-rate recordings, the hack adds hundreds of additional features, turning an already competent camera into a much more flexible one.

The downside of using modified software is that it doesn't come with the same promise of stability that you can expect from the stock firmware, and in some cases it could invalidate your camera's warranty. If something goes wrong while you're using modified firmware, your consumer rights begin to look shaky, and you could end up with a £2,000 paperweight.

Despite the Magic Lantern website warning 'remember that this software can damage or destroy your camera', it does also state that thousands of people have used it without issue – it's just that if you do, and anything goes wrong, then it's your fault, not theirs. In reality, the chances of it permanently damaging your camera are pretty slim.

Magic Lantern was originally developed for the Canon 5D Mark II, but the latest version also runs on the 50D, 60D, →





↑ **Free and easy** Magic Lantern adds a host of great new features to Canon DSLR cameras – and, better still, it's free



↑ **Sound logic** Magic Lantern's audio monitor above the screen lets you easily see when the input audio is too loud and going into red



↑ **Stay focused** The Magic Zoom feature expands a small part of the image and overlays it on the main display to help with focusing

MAGIC LANTERN → 500D, 550D and 600D, with support for the 1100D, 5D Mark III, 7D, 6D, 650D and EOS-M promised soon. The tweaks on offer vary from camera to camera, but whichever model you're using, it offers an impressive number of new functions.

In fact, because of the plethora of new items available, it's probably best to not try using Magic Lantern until you know your camera inside out and understand how to get the best out of shooting video on it using the stock firmware.

Magic Lantern is extremely easy to install – the software actually runs from the memory card, it's not actually installed on the camera itself. This means that apart from modifying the camera to allow Magic Lantern to boot on start up, the original camera firmware isn't really changed at all. This has two key advantages: first, everything from the original firmware is present; and, second, if you want to use your camera without Magic Lantern, you can simply use a memory card that doesn't have it installed.

One downside of it running from memory card is that all Magic Lantern setting changes are saved to the card in the camera. When you swap cards, you'll need to make any settings changes again. On the plus side, this means you can create different settings files for particular shooting styles – such as normal video and time lapse, for example. This means that you could have one memory card for normal video record-

ing and another for, say, timelapse and just swap cards when you want to change what you're shooting.

The sheer number of functions that Magic Lantern offers can be a bit overwhelming at first, but perhaps the most useful functions are those that help while you're actually recording video. Magic Zoom, for example, overlays a zoomed part of the image you're recording in a box onscreen, making it easier to see if the subject is in focus. Most DSLRs let you zoom in while you're setting up a shot to check focus, but once you hit record, the function is no longer available. By presenting a small, zoomed area in a box on top of the main image, you can check focus while also keeping an eye on the whole shot as well – it's a very effective solution.

**TO FURTHER HELP** with focusing, Focus Peaking places an outline on areas of the image that are in focus so you can see at a glance what will be sharp in your final footage. One of the attractions of filming on DSLR cameras is the ability to create a shallow depth of field, which blurs the background while keeping your subject in focus. However, if your subject moves, they could go out of focus and it wouldn't be immediately obvious. With Focus Peaking enabled, you've got an extra safety check.

Exposure is another area that needs to be kept in check when filming on DSLRs – overexpose part of the image and you'll never be able to get that detail back during editing.





↑ **Stay sharp** Peaking overlays the image with an outline of brightly coloured dots to show what's in focus in the shot



↑ **Time warp** Magic Lantern's FPS Override feature lets you create a timelapse movie in camera by reducing the frame rate as low as 0.2fps



↑ **Danger signs** The Zebra function helps show overexposed areas of the image by overlaying them in bright red

Zebras are a visual aid that helps highlight problems in the image you're recording – in this case, by overlaying any overexposed areas in bright red, so they're very easy to spot.

In-camera audio is also an area that can be lacking in DSLRs, and Magic Lantern helps alleviate that by providing some additional audio functions to make life easier. It displays audio meters above the image at all times, so you can see when the audio is too loud or too quiet. Even more usefully, you can adjust the audio levels while you're recording, so if your interview subject suddenly gets very passionate about something and starts shouting about it, you can just dial them down so that the audio will still be usable when it comes to editing.

These functions just scratch the surface of what Magic Lantern is capable of – if you want to be more creative, you can do things like reduce the recording frame rate to 0.2fps and produce timelapse videos that play back like normal movie files. There's also an intervalometer function that takes images at preset intervals – but with that you still have to then turn the series of images into a timelapse movie afterwards.

Magic Lantern is an incredibly accomplished and stable piece of software, which is even more impressive as it's available free of charge. If you want to thank the creators, you can make a donation, though. It still won't turn your camera into the perfect video camera, but it certainly helps solve some of the major problems that come with filming on a DSLR. ■



↑ **Winding on** Support for the 5D Mark III (here), 1100D, 5D Mark III, 7D, 6D, 650D and EOS-M is promised soon



→ **Fortune favours the brave**

While it's tempting to label shots like these 'lucky', the amount of work that goes into finding them means judgement and planning are the real heroes



**DAVE STEVENSON** has been a camera buff ever since the whirr-click of his first auto-winding compact in 1993. His book, the Pocket Guide to Digital Photography, is available from [magbooks.com](http://magbooks.com).

## PLAYING THE ODDS

*Getting great shots and keeping them has nothing to do with luck...*

PHOTOGRAPHY

IT OCCURRED TO me, as I watched the lion tear the zebra limb from limb, that I have more than my fair share of luck. At the very least, compared to the zebra, by now stripped to its spinal column and awaiting the attention of a pack of impatient jackals, I was doing very well indeed – but by any standard, happening across a feeding lion, in the warm morning light of a Namibian sunrise, isn't something everyone gets to see. (It's also not something everyone wants to see: the squeamish should beware that the circle of life spares few details.)

As my experience that morning demonstrates, luck is an element in plenty of great shots. You can't control all the factors that might affect a frame, so chance inevitably plays its part. It might be for better or worse, but good shots are created by a photographer's ability to either roll with the punches or capitalise on an unexpected windfall.

The one area in which there's no such thing as good luck, though, is when it comes to long-term image storage. This is important whether your shots have economic or just merely sentimental value, but it's always the case with image storage and backup that things work exactly, boringly and predictably as they should right until the moment they go dramatically, surprisingly and dismayingly wrong.

Still, while I have lost work through hard disk failure in the past, I've never lost a single shot while working in the field. This isn't through lack of trying, either: I've photographed in

very hot, very cold, very dusty and very wet places, with both weatherproof and non-weatherproof cameras, and with hard disks ranging from the very new to the worryingly ancient.

My ability to keep hold of work until I can get it onto a backed-up, RAIDed network share isn't luck, though. I've had hardware failure while on trips before – most recently in Namibia, in fact, when a previously reliable 500GB portable disk threw a strop and refused to mount. It might have been the constant heat, it could have been the dust, or it could have been the fact that it was my nominated hold-luggage disk, which travels separately from my laptop and other portable hard disk; at the risk of annoying airline staff, baggage handlers are not noted for their soft hands.

However, the files survived and I returned with over 2,000 intact shots, thanks to the fact that whenever I'm planning how I'll store and backup a file, I repeat the word 'redundancy' to myself with the kind of repetitiveness usually reserved for the HR managers of high-street electronics stores. The fact is that no matter what kind of storage you use – solid state or mechanical, ruggedised or off-the-shelf – every piece of electronic hardware you own will eventually bite a bullet. That means, despite what the makers of toughened, drop-proof, splash-proof hard disks would have you believe, having multiple copies of your files is much safer than single copies on a hard disk that looks like it fell out of a North Face catalogue.





↑ **Lucky strike** Some shots, such as this mongoose, do call for a bit of happy coincidence: there's no substitute for being at the right place at the right time

As an admittedly simple chap, I keep in-the-field backups equally straightforward. A daily backup of everything that's been shot, copied straight from the camera to a laptop's hard disk. From there, the entire folder gets copied to an external disk, and then copied again to a second external disk. Voila: the camera memory card can be cleared, leaving copies of its files in three places. Protecting what's in those three different places is as easy as making sure that three separate disasters need to happen to get them all: this doesn't need to be any more complicated than keeping everything in different bags, which at least requires you to be comprehensively robbed rather than merely opportunistically mugged. That way, you're no longer hostage to a single piece of bad luck, you're hostage to three pieces of bad luck, each happening in quick enough succession that you don't have time to take further preventative measures.

The good news is that in-the-field backup isn't expensive, relatively speaking. While permanent storage needs might stretch into the multiple-terabytes – particularly with RAIDed, networked storage – the storage you need for ad-hoc backup only needs to stretch to perhaps ten times the capacity of a memory card. Even that might be a bit much: on two cameras, you're looking at around 320GB per hard disk. Two external disks at that capacity won't cost much more than thirty quid, and because they're used for temporary storage – you'll wipe

them each time you finish backing them up to permanent storage – you'll only need to replace once when it fails, as the capacity will never be exhausted.

Indeed, storage redundancy is such a good way of protecting work of any kind that it more or less removes luck from the equation: the odds of a single hard disk going to the great Apple Store in the sky are low; the odds of two disks heading for an early grave in the same week are much smaller, and the chances of your MacBook's storage joining them in sympathy reduce the odds of losing work even further. Ultimately, it comes under the timeless heading of making your own luck, which virtually all photographers will identify as A Thing.

A photographer might consider themselves lucky to have bagged a front-row seat at a lion's dinner, but there's no luck involved in choosing the best place to go to give yourself a good chance of seeing something like that, and there's no luck involved when it comes to carrying the right kit to do the moment justice. Equally, there's no luck involved when it comes to key aesthetic decisions such as exposure and composition. As Jay Maisel would have it: 'If you're out there shooting, things will happen for you.' Surely inspiration enough for anyone whose camera is gathering dust to go and find something to snap. As long as your workflow – from start to finish – will withstand a few calamities, you'll still have more luck than our dearly departed zebra. ■



→ **Storage facility**

In the Color Picker, you can store your own collection of colours, which can be dragged from the Drawer below



**TOM GORHAM** has worked with Macs since 1991. Although his background is in print and web publishing, he's a devotee of any software that makes life easier.



## SHOW YOUR TRUE COLOURS

*Ensure corporate colours don't go AWOL in your presentations*

### IWORK PRO

IN PRINT AND on the web, corporate branding tends to be closely controlled. But this tight grip on a company's appearance is often abandoned when it comes to presentations. That's probably due to the fact that an individual or team is responsible for corporate publications and web output, but easy-to-produce presentations rarely come under the same control. Anyone can put together a presentation; if you're lucky, they might adopt a template with the company logo, but its fonts, colours and images are more often than not solely at the discretion of the artistic temperament of the presenter.

Sometimes this can lead to fascinating results. I witnessed one presentation a few weeks back that not only bravely abandoned the company's maroon-red typeface for puce-coloured Comic Sans, but used low-resolution images throughout that still blatantly displayed their origin in the form of a stock photography company's watermark. It was, literally, a real eye-opener.

So how can you ensure that corporate presentations look more, er, corporate? Well, the first step is to get the colours right. That means turning to the OS X Color Picker, which enables you to choose, store and re-use colours consistently across presentations. The colours that you store in the Color Picker aren't just available to all your Keynote presentations, either: they're instantly accessible to Pages and Numbers, and more widely to the majority of OS X applications.

The quick way to add a colour to the Color Picker (View > Show Colors) is to open a document that contains the target colour and use the Picker's Magnifying Glass to sample it. When this tool is active, clicking adds the colour of the pixels immediately underneath the cursor to the Picker's Color Well, from where it can be dragged onto slide elements to recolour them. Strictly speaking, though, the Magnifying Glass isn't the best way to add a colour for two reasons. First, because of inconsistencies in the sampled colour caused by, for example, interpolation, the colour you add to the Color Well may not match the target. Second, by default, the Color Picker's Magnifying Glass uses the Device RGB colour profile to set the sampled colour, which means it determines the colour values of the sampled pixels from your Mac's display, so might look very different on a different screen in a different medium.

If I'm honest, I've seen many good and disastrous presentations, but I've never yet seen one stand or fall on its precise colour fidelity, which isn't surprising considering how difficult it is to reliably predict the environment in which you'll be presenting. However, by accurately specifying a colour and assigning the right colour profile, you at least have a fighting chance of your presentation looking as you intended.

To more accurately specify the colour, select the Color Sliders tab in the Color Picker and choose one of the colour picking schemes – for a screen presentation, you're likely to





↑ **Here's one we made earlier** When saving Keynote themes, don't forget to add some sample slides based on the masters. This gives a more helpful preview if the theme appears in the Template Chooser

want to use RGB Sliders. Enter the desired RGB colour values next to each slider. Clicking the icon on the left of the pane will enable you to choose the colour space for the colour. The space you choose will depend on the capabilities of the projector or screen that you're going to use for your presentation. Most projectors I've seen support sRGB, so in most cases that's a sensible option to choose.

To permanently store that colour, drag it from the Color Well to the Swatch Drawer at the bottom of the window. If you're managing a large number of colours, you can instead create a separate palette for them. Under the Picker's Color Palettes tab, click the Settings drop-down menu and choose New. This will create a new, unnamed palette (you can rename it by going back to the Settings menu and selecting Rename). You can then add colours to your new palette by dragging them from the Swatch Drawer. The colours are automatically named for you, but you can edit these by double-clicking the name.

An advantage of storing colours in a palette is that they can be shared with others. Palettes are stored inside the Colors folder in your user library as standard.clr files. These can be transferred and opened by any other app that supports the Color Picker. To import a.clr file, select the file from the Open... option in the Color Palette's Settings menu.

Colours aren't the only thing to keep consistent: you'll also want text to follow any text specifications set out in the

corporate branding guide. Unlike colours, you can't store text settings independently of a Keynote file, nor can you quickly apply text styles to text as you can in Pages.

Instead, to customise the appearance of text in a presentation, you have to adjust the text properties of its master slides. Choose View > Show Master slides, and then select the master slide to adjust from the slide navigator on the left. Click inside a placeholder text box, select the text and adjust its font, size and other settings from the Format menu. You'll need to adjust these for all master slides so that any slide based on these will automatically adopt the same text formatting.

**WHILE YOU'RE ADJUSTING** the master slides, you can also add your corporate colours to them. Drag a colour from the palette window over a selected master element to change its colour. You can select multiple elements to change their colour in one go, but thanks to an annoying weakness of iWork, you can't adjust the colour of grouped objects, which would save time.

To change the master slide background colour, open the Master Slide Inspector and, under the Background section, ensure Color Fill is selected. Drag a colour from the Color Picker to the Inspector's Color Well and the background adjusts.

Once you've made these amendments, save the Keynote Theme (File > Save Theme). Before you do, create a few slides based on the masters you've edited. This isn't just to act →

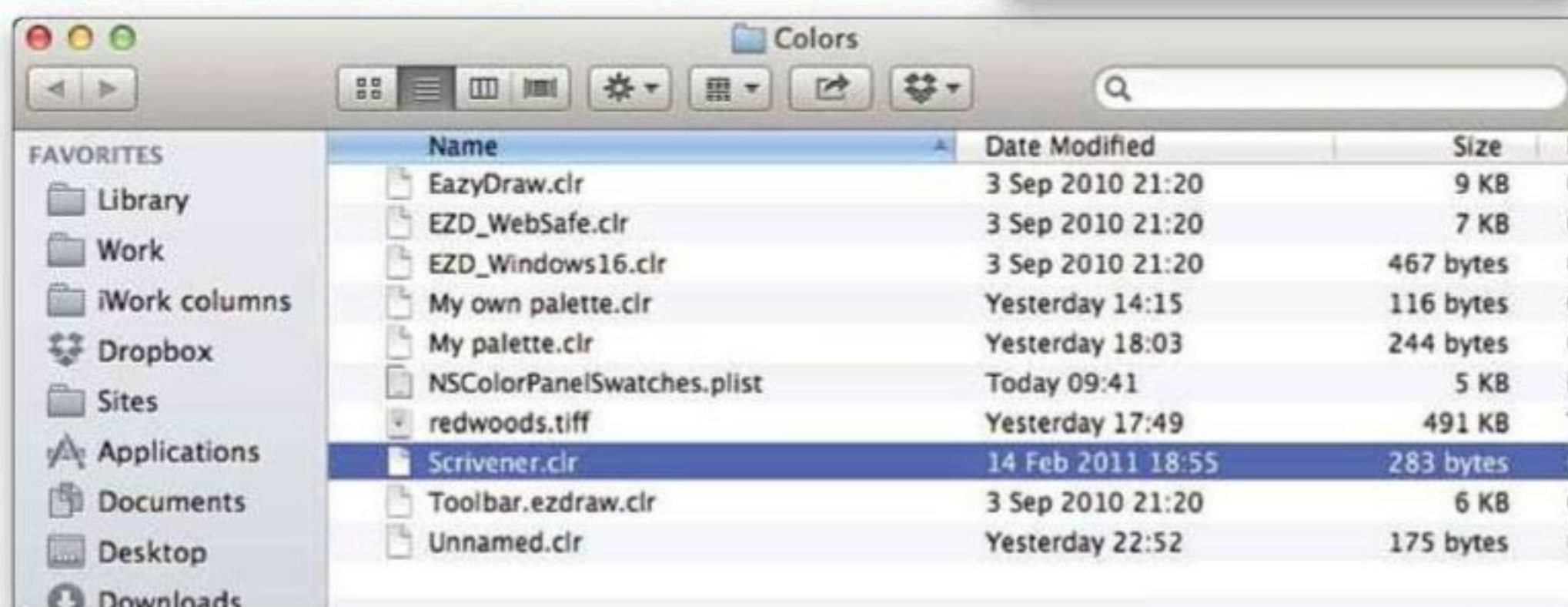




↑ **Drag queen** You can easily change background colours by dragging the colour from your palette to the Color Well in the Master Slide inspector

➔ **Instant access** Store frequently used folders of images in the Media Browser

➔ **Colours on cue** Every palette you create is stored as a separate file in your user's Library folder. This can be easily shared with colleagues



**CONSISTENT COLOURS** → as a check on how your master settings are applied. A preview of the slides is shown in the Theme Chooser, and by creating sample slides, you'll be able to see how your presentation looks as you move the mouse over the Chooser's preview thumbnail.

Themes are normally stored in your user's Library folder under Application Support > iWork > Keynote > Themes, but you can make a theme more accessible by storing it in a folder on a shared network, although remember that if it's kept there, it won't be available in the Theme Chooser.

The final piece of the corporate branding jigsaw relates to images and artwork. This is comparatively easy to manage. To keep an easily accessible library of corporate images, store them in a folder either locally or on a shared network. You can make this folder instantly available to your project by dragging it over the Photos pane in the Media Browser. The Media Browser retains the link to the folder until it's removed – if a link to a folder is no longer available, the folder preview will be grey rather than blue. ■

## Profiles

YOU CAN TELL if a colour in the Color Picker is using the Device RGB colour profile. A small grey triangular warning badge appears at the top right of the Color Well. To change its profile, switch to the Color Sliders tab and choose a different colour profile from the Color Profiles drop-down menu. To then replace a stored colour, drag the newly profiled colour over its predecessor in the Swatch Drawer.



← **Killer profile** The small triangle at the top-right of this Color Well indicates that the colour has a Device RGB colour profile, probably not the best choice for accurate colour



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## STEP BY STEP



**NIK RAWLINSON** is a freelance writer and photographer. His latest book, *Focus on Photoshop Lightroom*, is out now.



#### Tools required

- ✓ Mac ✓ Digital images
- ✓ Adobe Photoshop
- Lightroom or Apple Aperture

## IMAGE FILTERING

*Lightroom and Aperture make it easy to pick out your best shots*

‘YOU CAN PUT lipstick on a pig, but it’s still a pig.’ So said Obama the first time he ran for president. His opponents accused him of slinging mud at Sarah Palin, but in fact he was making the point that superficial, cosmetic tweaks don’t fundamentally change the underlying product, which in that case was the policies of the American right.

It’s a useful maxim to keep in mind when working with photos as, no matter how advanced your editing skills, you’ll still end up with a second-rate result if you start with a substandard shot. The first step in any editing process is therefore to identify your best work and discard, archive or simply ignore the rest.

Fortunately, both Apple Aperture and Adobe Photoshop Lightroom have a wealth of tools that help you identify the best shots from any particular session, and although they’re implemented in a slightly different way in each application, the end result is always the same: you’ll know for sure which shots are worth further development. Here, we’ll walk you through the various options in each application.

Once you’ve identified your winning shots, you need to decide how you’re going to separate them from the rest of your library. Our advice is quite simple: don’t. It’s easy to access your best shots not only from their current folders but also from a variety of referenced locations throughout both the Lightroom and Aperture interfaces while leaving the orig-

inal source files in their existing locations. The simplest way is to highlight your selected images and add them to an Album in Aperture (Cmd-L) or a Collection in Lightroom (Cmd-N). The files aren’t moved or duplicated, so they don’t consume more disk space, and you’ll be saved the confusion of having multiple copies of each image and never quite knowing which is the revision you ought to edit.

If you later decide that one of your shots doesn’t make the grade, then select it within the Album or Collection and tap backspace. The reference is deleted, but the original is left where it is, both on your disk and in its original location within the Aperture or Lightroom catalogue.

The biggest difference between Lightroom and Aperture concerns the way in which they store your files. In Aperture, your originals are locked away in an overarching compressed library, which means you can’t interfere with them in the Finder unless you expose the library package contents.

Lightroom, on the other hand, is a front end – like Adobe Bridge – which references the originals wherever they reside on your disk (your OS X Pictures folder, perhaps). It’s important, therefore, once you’ve identified your favourites within Lightroom, not to touch your images through the Finder. Always copy, move and delete your photos through Lightroom itself to avoid undoing all of the good work you’ve done in hunting down your best shots.





**STACK YOUR IMAGES** Most of us take the same shot several times in quick succession to give ourselves several to choose from. 'Stacking' these shots when you get back to your Mac reduces the amount of clutter in your library. Highlight the related images and hit Cmd-K in Aperture, or Cmd-G in Lightroom, to group them into a stack. In either case, a numbered chip in the corner of the first image shows how many others are grouped behind it in the same stack. Use Shift-K in Aperture and 'S' on its own in Lightroom to expand and collapse the group.



**AUTOMATIC STACKING** If you've been on a two-week expedition, you might have several thousand images, all in need of stacking. Cut time by highlighting all of your images and picking Photo > Stacking > Auto Stack by Capture Time... in Lightroom, or pressing Cmd-Alt-A in Aperture. Now drag each application's slider to the right to define a time frame. Any group of images taken within that timeframe will be stacked as a group. If you happen to snare some unrelated subjects, you can always remove them from their stacks later by selecting Remove from Stack in Lightroom's Photo menu, or pressing Shift-Alt-K in Aperture.



**COMPARE IMAGES IN LIGHTROOM** Open a stack and switch to Compare mode by pressing 'C' in Lightroom. This displays two images side by side, the image marked Select assumed to be your best, while Candidate is being judged against it. If you prefer Candidate, click the Make Select button above the film strip to promote the Candidate shot to the select position. The next photo in the stack now assumes the Candidate position. Repeat the operation if this shot is even better, but if it isn't, press the right cursor key to move the next image into the Candidate position and compare them again. Continue until the end of the stack, using the 1 – 5 keys to rate your images.





**COMPARE IMAGES IN APERTURE** Open a stack and switch to Compare mode with Alt-O. The left image, bordered green, is assumed to be your best (the Compare), with the white-bordered image to the right being judged against it. If the second shot is better, hit Return to make it the Compare and move on to the next shot. If it isn't, press the right cursor key to move on to the next shot on the film strip and repeat the process until you get to the end of the Stack, using the 1 – 5 keys to rate your images as you go. When you're done, the best image in the Stack will be in the Compare position.



**PROMOTE YOUR BEST SHOTS** Now that you've identified the best shot in each Stack you should promote it to the top of the Stack so that it's used as the thumbnail to represent each of the related images in your library. You'll also then know that the first image in any Stack is the only one worth developing further. In both Lightroom and Aperture, you can do this easily by dragging the chosen image up through the Stack on the grid view. A vertical bar (green in Aperture, black in Lightroom) marks its position in the Stack as you drag.



**SURVEY SHOTS IN LIGHTROOM** If you can't decide between three or four shots, you need to stop comparing and start surveying. Select the images you need to evaluate and press 'N' to switch to this mode. Each of the selected shots will be ranged across your display in their existing order. Drag them around until you have rearranged them according to merit, with your best shot in the top-left slot. You'll notice that they rearrange in sync on the film strip at the foot of the page. You should now find it easier to rate them using the number keys or by clicking the dots below each frame.



# STEP BY STEP



**SURVEY SHOTS IN APERTURE** Aperture performs Lightroom's Survey feature through its Light Table module. Select the images you want to organise, right-click on any one of them and select New > Light Table. The film strip now contains only your selected images, so drag them onto the light table where they can be stacked, resized and reordered until you have settled on which is the best of the bunch. Working this way is very similar to the tried-and-trusted method of scattering printed shots across a physical table and moving them around until your best work becomes obvious. You can create as many Light Tables as you want without duplicating your images on disk.



**CREATE SMART LISTS** It should now be clearer which are your best shots, and soon you'll be ready to start work on the edit to give them a little extra polish. At the moment, they're scattered throughout your library, so use their metadata to bring them all together. Scroll down to the bottom of the left-hand sidebar in the Lightroom Library module and click the '+' beside the Collections header. Select Create Smart Collection. In Aperture, make sure the Library tab is visible and use the keyboard shortcut Shift-Command-L to create a new Smart Album.



**FILTER BY METADATA** Use the various metadata criteria in each application's smart list creation dialog to highlight only the images that meet your specific requirements. If you've been rating your images as you go, use the Rating options (it's the same in each application). So that you can always identify your best new work, it's also worth adding a time delimiter, so in Lightroom add a Capture Date parameter and set this to 'is in the last x months'. Achieve the same in Aperture with the Date parameter and the same criteria. Save your list, and it will update whenever you add new images and identify your best shots using the steps outlined above.



EMAIL HELP@MACUSER.CO.UK

## Q&amp;A



**HOWARD OAKLEY** has used Macs in science and medicine for over 20 years, and has developed commercial software.

**THEY CAN HELP** Apple's technical support system, Knowledge Base, is always available online. At [support.apple.com](http://support.apple.com), you can search for answers on any Mac or iOS topic. If you need help with a particular product, enter its serial number at [selfsolve.apple.com](http://selfsolve.apple.com) and Apple will show you all the support, warranty and repair options. (There's a link here to details of where to find the serial number, too.) Or try [expresslane.apple.com](http://expresslane.apple.com) to narrow down the options quickly. For user manuals, see [support.apple.com/manuals](http://support.apple.com/manuals).

**WE CAN HELP** If you have a specific technical problem or query, write to Howard at [help@macuser.co.uk](mailto:help@macuser.co.uk). Explain the issue in full, giving details of your hardware and software. You can also reach us by post at Help, MacUser, 30 Cleveland Street, London W1T 4JD. Please note that we can't answer questions in person at this address.

**YOU CAN HELP** Some problems are rare, but few are unique. At [discussions.apple.com](http://discussions.apple.com) you can ask questions, search others' answers and help out yourself.

## ► THE LONG VIEW ►

## New tablets for old

*As great as Apple's tablets are, you'll need OS X if you want to study scripts from the ancient variety*

DISTRIBUTING CONTENT ON tablets is one of the oldest features of civilisation as we know it. More than 5,000 years ago, in thriving cities such as Uruk that were situated between the rivers Tigris and Euphrates, the earliest written records were created on clay tablets using a reed stylus. Unlike later Egyptian hieroglyphics, which were most commonly committed to friable papyrus made from sedge plants, these clay tablets survived many disasters including fire, which only preserved them better.

It would be lovely but completely false to think that classical cuneiform script, which evolved from this earliest Mesopotamian writing, was driven by the desire to record literature or perhaps religious material. Although later tablets did contain cultural documents, the real motivation behind our first written records was accountancy: keeping details of harvests, grain sales, land ownership and tax accounts. As in so many other features of what we consider to be civilisation, it was the material rather than cultural world that cut the leading edge.

The earliest languages to be written using cuneiform script were Sumerian and later Akkadian, both of which used collections of signs composed from multiple wedge-shaped marks. In contrast to the alphabet used to form these words, cuneiform started as logograms representing entire words. Thus the sign known as KA grew to represent not only the word 'ka', but also that for 'zu', 'kiri', 'dug', and 'inim'; during the next millennium it became a phonogram for the syllable 'ka', too. With more than 800 different signs used to form words, and around 100 for numbers, cuneiform signs were first incorporated into the Unicode 5 standard for representation in computer text, some 2,000 years after they ceased to be used in clay.

Many thousands of cuneiform tablets discovered in hurried excavations or bought following frank looting of sites

found their way into institutions such as the British Museum in the nineteenth century, and are painstakingly detailed with contents transcribed in series of books published about a century ago. Sumeriologists have made them freely available as Acrobat PDF documents, giving access to these treasures to all. You can now learn long-dead languages like Sumerian from excellent electronic texts, consult online dictionaries, and read their literature from original tablets.

Although an excellent platform for libraries covering Sumerian, Akkadian and other cuneiform tablets, the iPad falls far short of the flexibility of a Mac. iOS doesn't allow you to customise the fonts available on your iPad, so apart from within a few specialised vector graphics drawing apps, you can't display cuneiform encoded as Unicode text under iOS. If you want to make your own transcriptions, or access modern documents in which the cuneiform has been encoded as Unicode characters rather than scanned pixels, you'll need to install custom cuneiform fonts onto a Mac running OS X. Several free fonts are available, encompassing the different stages of the script's evolution, and the Nesili keyboard layout even helps you type directly in cuneiform signs.

With Sumerian grammar still riven with disagreements, and the bewildering polyvalence of cuneiform signs, reading man's first literary output remains a challenge. Online collections such as Oxford's Electronic Text Corpus of Sumerian Literature at [etcsl.orinst.ox.ac.uk](http://etcsl.orinst.ox.ac.uk) offer excellent translations that provide insight into the life, strife and loves of people alive when, far beyond the north-western edge of their world, Stonehenge was advanced technology.

There is something satisfyingly recursive about studying the contents of the very first writing tablets on the latest of Apple's tablets.





**Front runner** The first device in a USB chain determines the maximum performance of a USB 3 port



IMAGE NORMAN CHAN ISTOCKPHOTO.COM/BEDO

## Chain gang

From Peter Christie

**Q** Having just upgraded from a Power Mac G5 to a MacBook Pro, I was concerned to read Apple's Q&A on its new USB 3 ports. Is it true that they configure to the speed of the equipment that's first connected, so mine will now be stuck at USB 2 speeds?

**A** Don't worry: you've been confused by the ambiguous language used in support. [apple.com/kb/HT5172](http://apple.com/kb/HT5172). The relevant sections state that USB 3 ports autoconfigure to the USB device that is connected 'first'. By that, it refers not to the first in time, but closest in the chain of devices. If you connect a chain, such as a USB hub and then a series of devices connected to that, the Mac port will see only the performance of the first link in that chain, the hub. If the hub is a USB 3 device, then your Mac will run that port at USB 3 speeds, even if the hub only has USB 2 devices connected to it. If instead you connect a USB 2 hub to the port on your MacBook Pro, then no matter what you connect to it, the Mac will only run USB 2 speeds to it.

## Mangled .doc

From David Ward

**Q** Why does a single-page invoice, created in Microsoft Word and saved in .doc format, open correctly in Pages '08, but appears fractured in Pages '09?

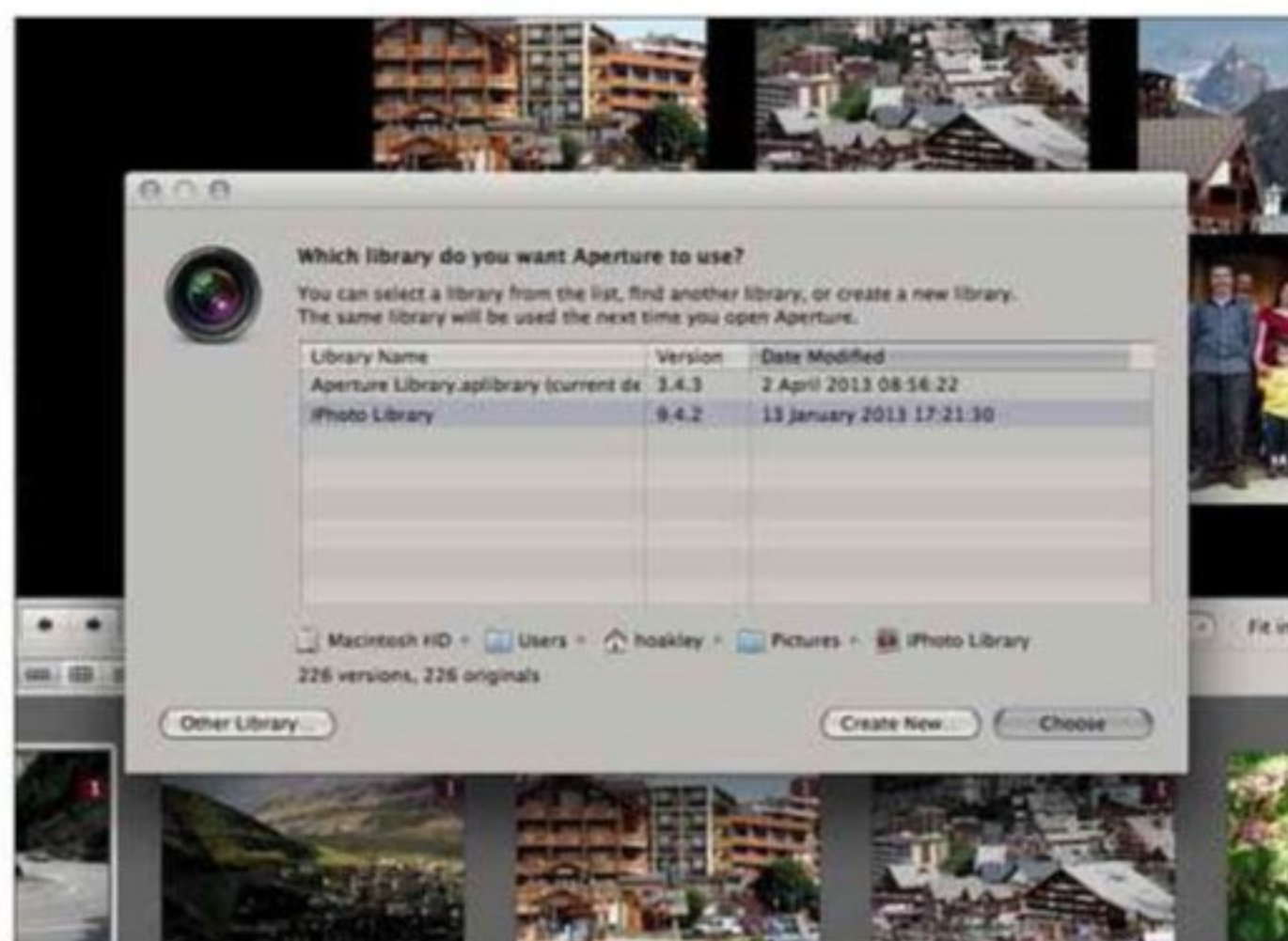
**A** Checking the file that you sent, it opens fine in Word 2011 and LibreOffice, too, but Pages 4.3 makes a dog's breakfast of it. This is because the .doc native format isn't a fully open standard, and different attempts to produce converters than can open .doc files will trip over certain files. Some third-party applications such as Pages and LibreOffice share system-level document conversion libraries, but it's clear that Pages '09 is doing its own thing here. Ultimately, the only reliable way to open .doc files is with Word, and even then some versions may mangle some files – all very Microsoftian. If someone needs to send you non-editable files, an open interchange format such as PDF is generally more robust and less likely to mess up the formatting. It's also worth their bearing in mind that sending a regular Word document is an invitation to inadvertent or even deliberate editing of its content, which is perhaps inappropriate for records such as invoices.

## Call the professionals

From Brian Smale

**Q** I've embarked on a major project to have my lifetime photographic work converted into digital format, and am paying a company to do all of the scanning for me. I've hit a problem with my workflow, in that monochrome negatives develop a bleached-out appearance whenever I change their creation date to, say, 1957. I am using iPhoto 9.4.1 on an 8-core Mac Pro with OS X 10.7.5. How can changing a date cause changes in an image?

**A** This is a bug in iPhoto, which may be addressed in its latest release, 9.4.2. However, given your substantial investment in external services, and the scale and importance of this work, you should think again about continuing to use iPhoto for your library: it's best for snaps, and isn't intended to be a pro tool. You should find Apple's Aperture or Adobe Photoshop Lightroom much better suited to large libraries of this kind. Used by large numbers of professionals with huge libraries and large images, they aren't, of course, guaranteed free of bugs, but are much less likely to let you down. Furthermore, Aperture's libraries are now structured the same as iPhoto's, and are interchangeable.



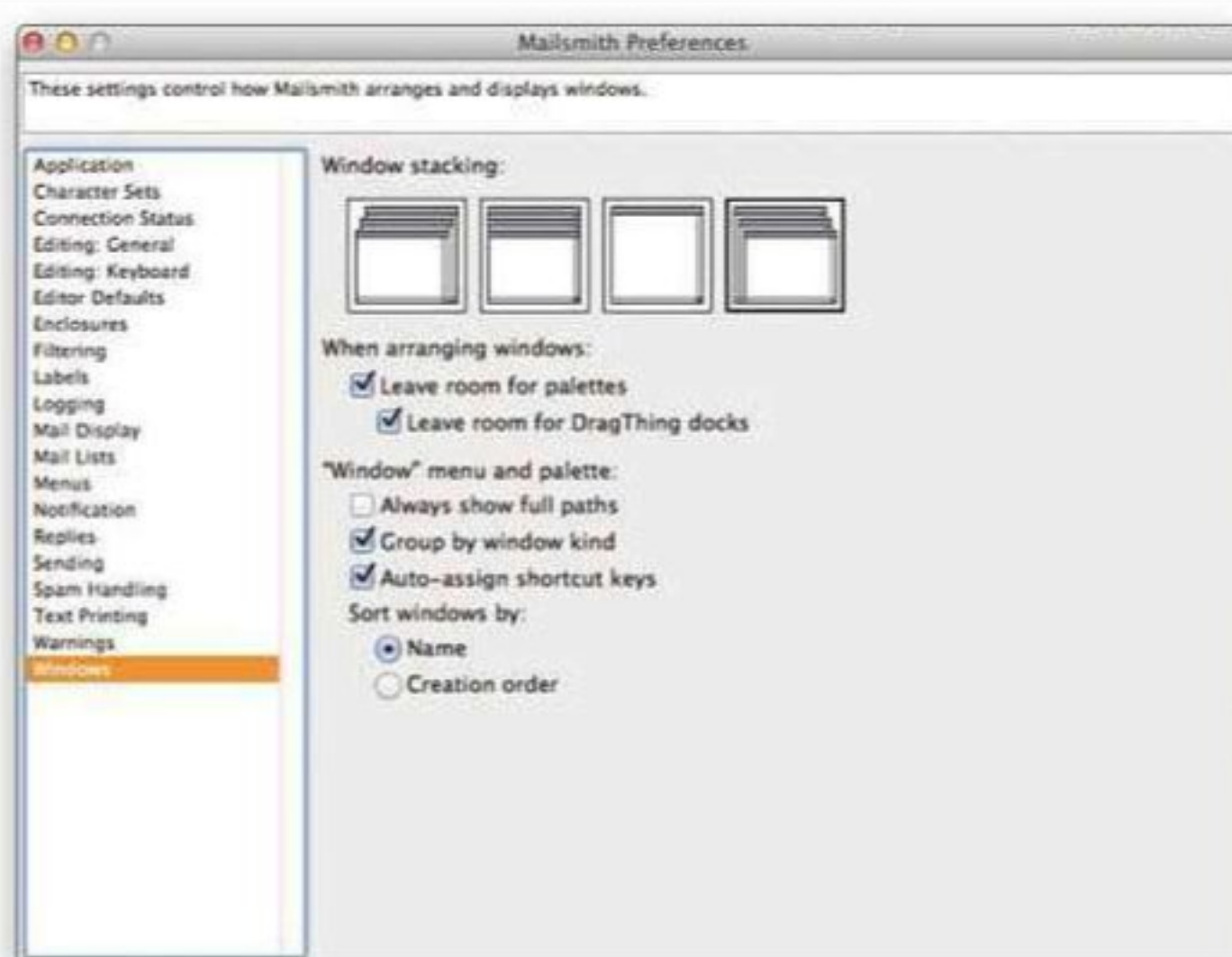
↑ **Go pro** Aperture and Lightroom are best equipped to work with large image libraries, and Aperture can now access iPhoto libraries as well



EMAIL HELP@MACUSER.CO.UK



↑ **Cloud music** Many users have reported erratic results with iTunes Match, but you may fix some problems using the Update iTunes Match in the Store menu



↑ **Flexible friend** Mailsmith is an unusual, powerful and highly configurable mail client that even lets you set the way that it stacks windows

## Match sticks

From Will Parfitt

**Q** I've been using iTunes Match to upgrade tracks in my music library from lower bit rates to 256, but have discovered that some tracks won't match. Why?

**A** iTunes Match works best with tracks bought from the iTunes Store; problems seem to be most prevalent with tracks ripped from CDs and other sources. Ensure you've enabled both iCloud Download and iCloud Status in View Options, as the latter will tell you which have been matched. Next, select Update iTunes Match in the Store menu, as this can fix issues.

## Message block

From [no name given]

**Q** The Mail Activity bar in Mountain Lion's Mail often tells me I have incoming messages, and the blue bar tells me they're being downloaded. Why don't they then appear in my mailboxes?

**A** This depends on whether you only use Mail to connect to your iCloud/.Mac mail account(s), or you also use it with third-party services. If the latter, it may be an issue with those mail servers. Mail polls the servers to see when messages are waiting; if it gets the wrong answer, Mail displays that. If iCloud/.Mac makes such errors, contact Apple's support.

## Mail pride

From Mike Armitage

**Q** In my experience Apple's Mail 5.3 tends to freeze and has other glitches. Are there any decent alternatives?

**A** The current version of Mail is 6.2, which is bundled with Mountain Lion and seems quite stable. It's worth checking whether your problems might be due to a corrupt mailbox, for instance, by weeding the mailbox thoroughly, then rebuilding it.

Choosing a mail client is quite a personal decision, but one of the first things you need to discover is whether it needs to support IMAP servers such as Apple's iCloud, POP/SMTP, or both.

Postbox (£6.47, sold in US dollars at \$9.95, from postbox-inc.com) is good for Gmail accounts, has social network connections, and works well with both IMAP and POP/SMTP services. PowerMail (£41.74, sold in Euros at €49, from ctmdev.com) is multilingual and sports powerful searching of message content, even if you want to keep thousands of old messages. It also works comfortably with both IMAP and POP/SMTP. There are dozens of other good clients available from the App Store and vendors' websites.

One unconventional choice is the free Mailsmith from mailsmith.org. If you're fed up with lavish HTML or RTF messages and want to get down to the bare text content, it works only in plain text, and strips that content out for you, helping you see through most phishing and other scam messages. It's also uniquely configurable. You should also consider buying SpamSieve (\$30 from c-command.com/spamsieve) to spare you trudging through all the spam; this app works as an add-on to most mail clients.

As Apple's Mail is the bundled standard, most mail clients can import its mailboxes directly. However, if you settle on something more exotic that can't do that, or you're disappointed with the result, Emailchemy (from £19.50 – \$29.95 – from weirdkid.com) is a Rosetta Stone to mailboxes that can convert between most formats. ■

## ⚙ Did you know?

IT'S EASY TO confuse USB 2 and 3 cables and sockets. Standard products differ in the colour of the rectangular plastic insert inside the plug or socket: USB 2 can be any colour but is commonly white, while USB 3 should be blue (Pantone 300C).





## BACKGROUND READINGS

# PRIMER



IMAGE MAGDALENA TWORKOWSKA ISTOCKPHOTO.COM/MEGAMIX

## Thawing a frozen Mac

### ⚙️ What to do when your Mac won't start up properly

WE HAVE ALL been there before: the clock is ticking far into the night and you simply must meet that deadline. But then everything stops dead, a **frozen Mac** forcing you to restart, only to see a grey or blue screen and no glimmer of the Finder. You have next to no time to revive your Mac, or at the very least extract those precious files so that you can complete the job on another system. Lacking the Finder, your normal toolkit remains out of reach. So what do you need to do next?

Before you go any further, with your Mac powered down (press and hold the power button to force a shut down if necessary), turn off and **disconnect all non-essential peripherals**, such as external hard disks, scanners, printers and broadband USB modems. Keep just the bare essentials, including USB keyboard, mouse, display and your network connection. Apple advises disconnecting Ethernet cables, but on some occasions they can allow you command-line access through **ssh**, the secure shell; this is particularly useful when trying to sort out frozen servers. Many peripherals rely on

**drivers** that will only be loaded when they're connected, and those drivers can be the cause of problems during the early phases of startup. If you normally use a **wireless mouse** or **keyboard**, swap those for vanilla USB items, which don't rely on the successful loading of Bluetooth drivers.

If your Mac has any unusual **expansion cards** installed, now is also a good time to pull them, to bring it back as close as possible to its factory specification. Any non-Apple **memory** may also be removed now, although you should ensure that your Mac retains sufficient memory to run normally. Most recent releases of OS X have progressively eliminated software causes for freezing and kernel panics, leaving hardware issues as the most likely culprits.

The first remedy to try is restarting in **Safe mode**, with the Shift key held down. This forces a quick directory check of your boot volume, and then loads only the required kernel extensions (**kexts**) from /System/Library/Extensions, and disables all startup and login items. It's also valuable for addressing font issues, as it disables all fonts

except those in /System/Library/Fonts, and trashes all font caches. Finally, it removes the dynamic loader (dyld) shared cache that can cause 'blue screening' after a broken system software update. Unfortunately, these actions also disable some parts of OS X that you might need: you can no longer use DVD Player, capture video in iMovie, use audio input or output devices, or use internal or external USB modems, and sometimes even AirPort cards may be disabled. File sharing access is unavailable, preventing you from mounting Time Capsule disks and others being shared over the network.

**OLDER MACS MAY** then warrant **resetting the PRAM and NVRAM**, and sometimes the **PMU**, although more recent models are less likely to benefit. Start up the Mac with the Cmd, Alt, P and R keys held patiently until you hear the startup chord a second time. Release the keys then to allow a normal startup sequence to follow. PMUs and related hardware reset buttons vary with different models, and need to be checked in Apple's documentation. Although →

**TAGGED AS: FROZEN MAC, RECOVERY TOOLS, SSH**



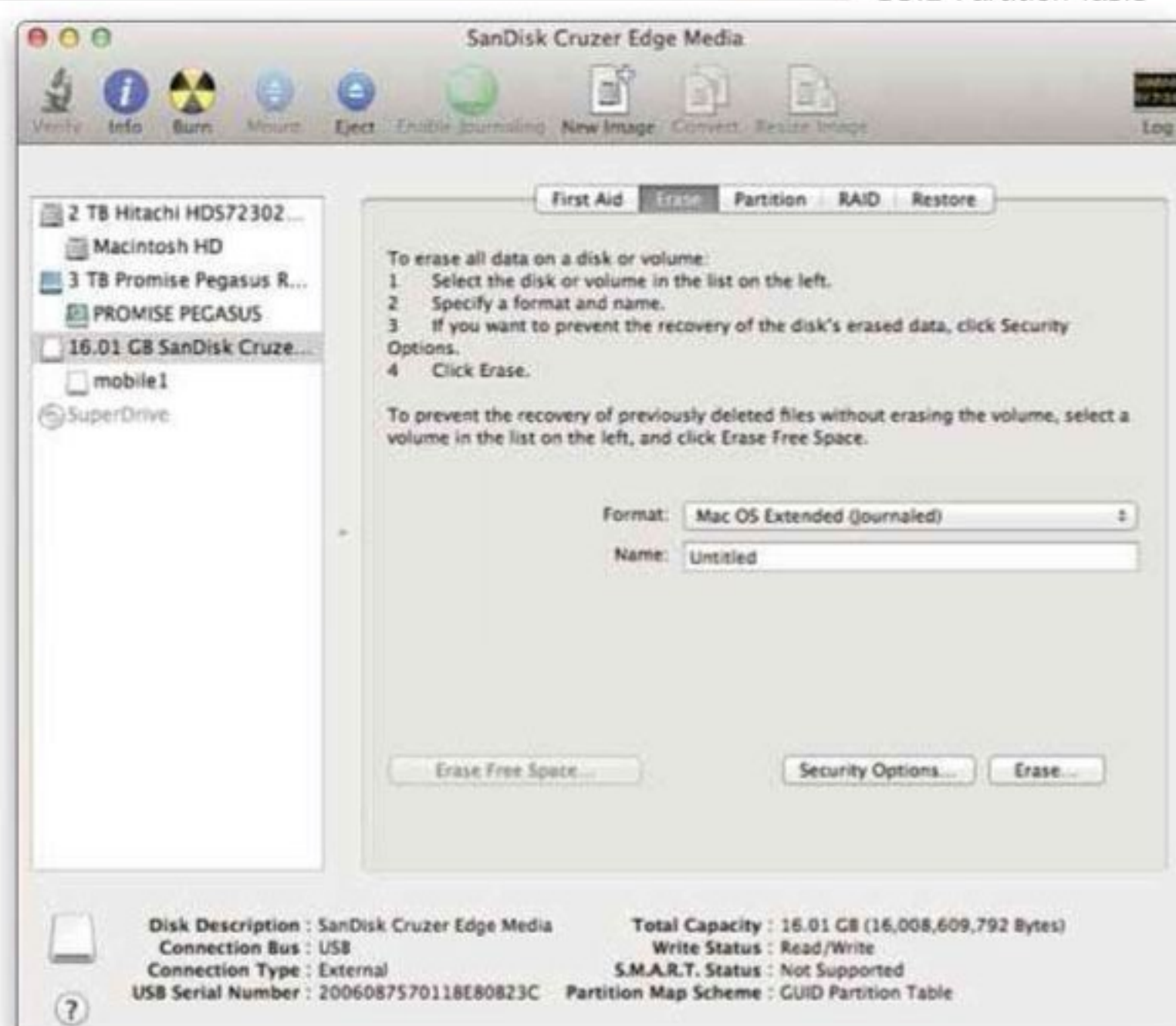


#### ← Recovery position

Recovery Disk Assistant makes it very simple to turn a Mac OS Extended volume into a Lion or Mountain Lion Recovery Disk

#### ↓ Road to partition

Before turning any memory stick or external drive partition into a Recovery Disk, ensure it's partitioned using GUID Partition Table



## Mountain Lion recovery disks

PROVIDED YOUR MAC has a hidden Recovery HD partition, you can use Apple's **Recovery Disk Assistant**, detailed at [support.apple.com/kb/HT4848](http://support.apple.com/kb/HT4848), to create external hard drives and memory sticks for starting up a broken Mac. However, if Mountain Lion came pre-installed on that Mac as new, those **recovery drives** will only work with that Mac. Copies of **Mountain Lion** bought through the App Store can create recovery drives that will work with any Mac authenticated against that account. Apple recommends installing OS X on an external drive, a hard disk or memory stick, using its App Store installer. You may need to download Lion or Mountain Lion again to accomplish this; if this isn't offered in the Purchases tab of the store app, Alt-click the **Purchases** tool to enable it. Prepare the storage medium using Disk Utility, ensuring it's partitioned using GUID Partition Table, and the volume format is Mac OS Extended (Journaled). With that disk mounted, run the Lion or Mountain Lion installer, opting to install on that recovery drive.

Provided you have an unused copy of the Lion or Mountain Lion installer, you can create a smaller, dedicated **recovery volume**. First, ensure you partition and format the drive as above, to a GUID Partition Table and Mac OS Extended (Journaled). Then open the installer and look in its Contents/SharedSupport folder for the image named `InstallESD.dmg`, which is the boot disk image. Using Disk Utility, restore that image to your recovery volume.

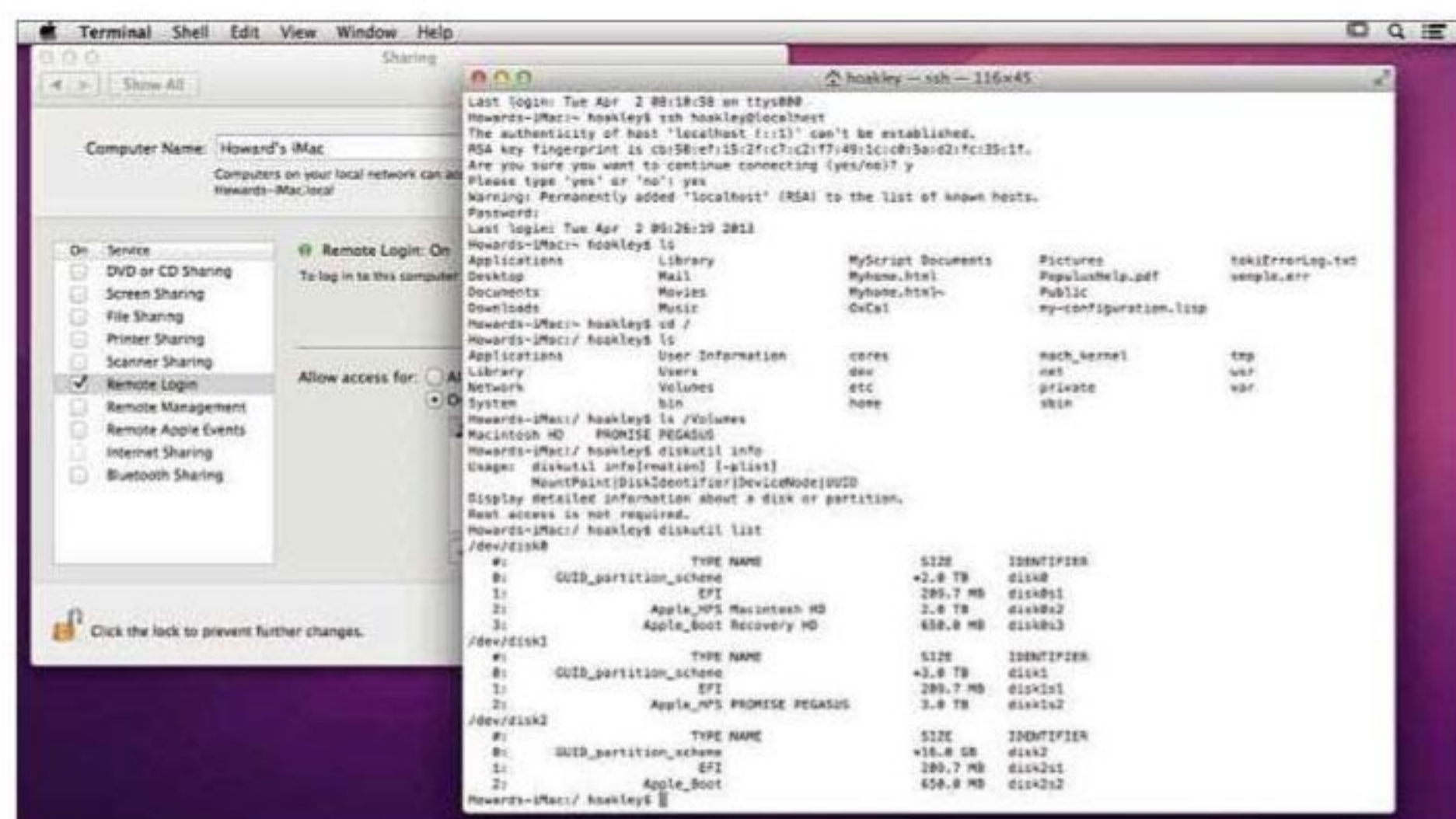
FROZEN MACS → they can sometimes bring a dead Mac back to life, success is sadly unusual.

Lion and Mountain Lion systems have built-in **recovery systems** that should enable you to repair most software problems without the need for optical discs. These work best on Macs with at least Lion installed from new: to tell whether your Mac has full support, restart holding down the Cmd and R keys. If you're then offered **Disk Utility** and other tools, **OS X Recovery** is fully enabled. If you're not offered these options, you need to create your own external OS X Recovery disk, which you can boot by holding down the Alt key at startup. The snag with that is that Apple's free tool, Recovery Disk Assistant, requires there to be an existing **Recovery HD**. If you've upgraded from Snow Leopard, you probably didn't acquire that (which requires repartitioning of your startup disk) and need a workaround.

If your Mac has complete Recovery Assistant features, restart with the Cmd and R keys held down and you enter the dedicated environment of Recovery HD. There, you have access to Disk Utility's check and repair features, Time Machine backups held on accessible storage devices and online support via Safari. If the startup drive has failed or is empty, and you have an internet connection, **Internet Recovery** should start downloading its online service. This provides the same features as the local Recovery Assistant, but using remote copies, so becomes ponderous unless you have a good broadband connection. Details of Lion and Mountain Lion Recovery are given at [support.apple.com/kb/ht4718](http://support.apple.com/kb/ht4718).

The snag with Apple's recovery systems is that they work best on recent models with good internet connections. The older your





**↑ Shell out**  
You can test out ssh access once it's enabled by connecting to the same Mac on which you're working. Then try connecting from another system

**← Good to share**  
If you want to enable ssh access to an OS X client system, you'll need to turn this on in the Sharing pane of System Preferences

## Fixes without restarts

SOMETIMES YOU MAY want to recover or analyse a frozen system without restarting it. This is most frequently the case for **servers**, where you want to shut down services in an orderly fashion beforehand or even keep the system running until it's more convenient to restart it. Although the frontmost application or Finder may be frozen, background services may still be running unaffected, in which case you can connect using the **secure shell**, ssh. This sshd service is commonly enabled on servers, but if you want to use it on a client installation of OS X, you'll need to enable it in the Sharing pane.

The snag with ssh is that, unlike Apple Remote Desktop access, it's driven from the command line of **Terminal**. Connect to the system using a command of the form `ssh username@machineaddress`, where username is a recognised admin user account on the remote system, and machineaddress is a resolvable network address; the latter is normally best given as the IP address. ssh will then normally use a **private key** system to verify the identity of the connecting computer, something that you should set up before disaster strikes. These keys are stored in `~/ssh`, and can be copied across users and systems.

Once you've authenticated with the correct password for that user on the remote Mac, you can then enter almost any shell command, and you might want to copy files from the remote Mac to local folders, browse logs, list running processes, and stop or restart services. These, and the process for generating keys, are detailed in the Mac OS X Server manual Introduction to Command-Line Administration, available from [manuals.info.apple.com/en\\_US/IntroCommandLine\\_v10.6.pdf](http://manuals.info.apple.com/en_US/IntroCommandLine_v10.6.pdf). Once complete, typing 'logout' closes the ssh connection.

Mac, the fewer features it will support, and the slower your internet connection, the less practical Internet Recovery becomes. These make it important that you confirm which facilities are available on your systems, and prepare external recovery drives if necessary, before you need them.

If you're running Snow Leopard and earlier, you instead have a choice, depending on what tools you have to hand. If you keep an **emergency recovery disk**, typically a bootable external hard disk loaded with useful tools, then that's an obvious move. If you rely on more than one Mac, you should build and maintain such a disk, and even the single-user who works to tight deadlines should look seriously at this. If you prefer, you can use **Das Boot** (free from [subrosasoft.com/software/freeware/dasboot-2-0](http://subrosasoft.com/software/freeware/dasboot-2-0)) to turn a USB memory stick into a recovery tool, which may be the best option for the laptop user on the road.

Second in preference after your own disk is a **bootable optical disc** supplied for the purpose, commonly your most recent

OS X Install disc, or an AppleCare diagnostic disc. If you're caught short with no other option, you may have to rely solely on the tools on the sick Mac, starting up in **Single User mode** (SUM), by holding down the Cmd and S keys during startup until the screen starts to fill with text. You're then logged on as the **root user**, a bare minimum of OS X is loaded, leaving you in the command shell, with disks mounted read-only. If your Mac can start up under its own steam, it's most likely to do so in SUM.

Unless you're a real wizard, there are only two tasks that you'll be able to perform in SUM: repairing your startup disk and restarting. The first is accomplished with the standard command `/sbin/fsck -fy`. If the resulting text reports successful repair, you should repeat this until all checks are normal, then type 'reboot' to try a normal system restart. If all else fails and you still need access to your work, the final option is to extract the hard disk containing them and insert it in another Mac or an external drive enclosure. ■

**Howard Oakley**



# PRODUKT

ROUNDUP

iPad keyboards

**£50**

Freedom

**£40**

KeyCase

**£80**

Freedom

**£40**

Snugg

**£32**

iGo

**£120**

ZAGG

**£40**

Cygnett

**£40**

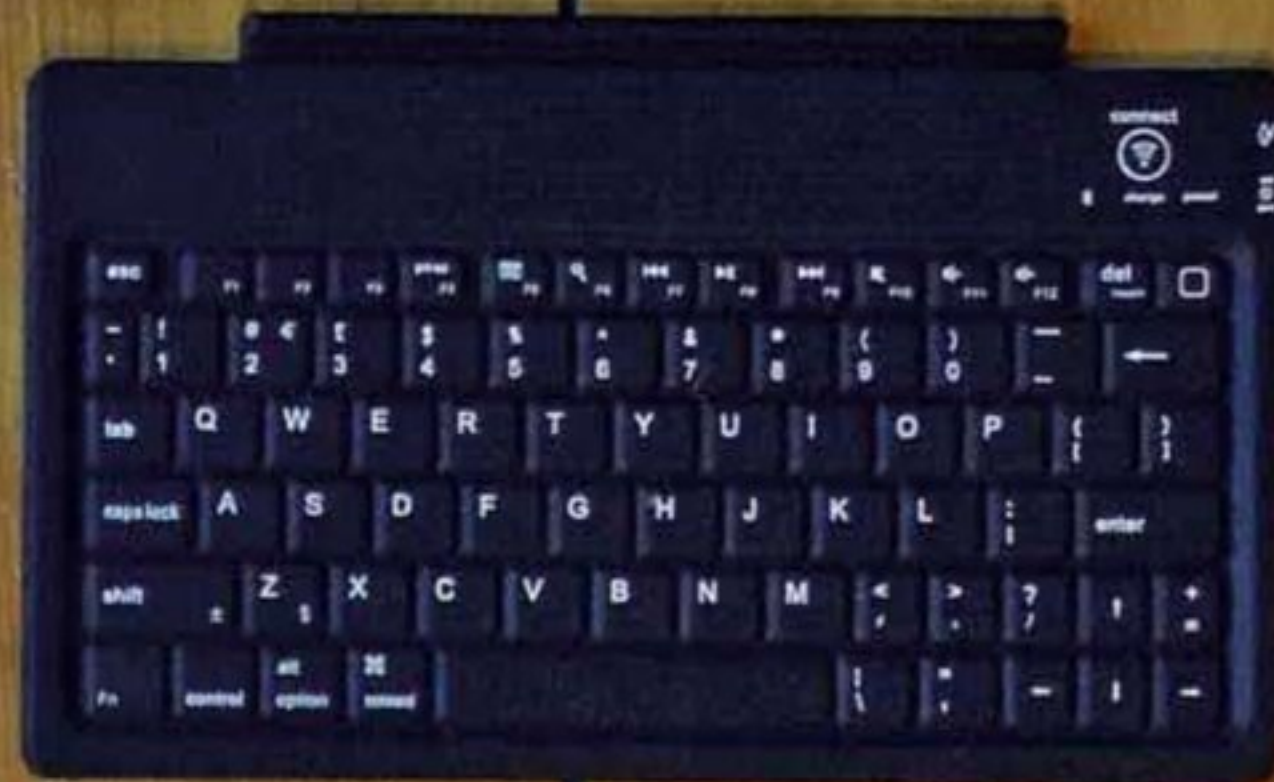
Freedom

**£50**

STK









THE VIRTUAL KEYBOARD was one of the first features that Steve Jobs envisaged for the iPad, by his own account. A screen you could type on – holding the Shift key at the same time as letters when required – would remove the need for the mechanical keyboard that hampered clamshell laptops. It was a crucial element of the multi-touch tablet concept that's now killing cheap notebooks.

And the iPad's on-screen keyboard does work amazingly well. But sometimes you may miss the real thing. Tactile feedback can make typing large amounts of text more comfortable and more accurate, and editing is easier with cursor keys and shortcuts.

Bluetooth keyboards are the answer. Apple has built support into iOS for the extra keys you'd expect, and dedicated models can also offer a row of preset function keys to adjust the iPad's screen brightness and volume, return to the home screen or put the iPad to sleep, or trigger a slideshow of your photos.

All but one of the nine keyboards we tested have built-in batteries that last hundreds of hours on a charge. You'll need a powered USB port or USB mains adaptor, since only the cable is included. To pair any keyboard, once powered up, with any iOS device, press the keyboard's Bluetooth button until it flashes, then go to Settings > Bluetooth, tap the name of the keyboard, then enter the four-digit code you're given (if required). Once paired, the keyboard will connect automatically to that device in future whenever they're both powered up.

Since iOS will automatically stop displaying the virtual keyboard when there's text to be entered, you'll gain a lot of screen space. Be aware, though, that you'll lose auto-correct, since this relies on detecting the positions of your fingers on the screen, not just which keys you (accidentally) hit.

An iPad is the obvious choice, but these and other Bluetooth keyboards, including Apple's Wireless Keyboard, will also work with an iPhone or iPod touch, as well as Macs, PCs and other gizmos.



## iGo Bluetooth Keyboard for iPad

▲ There's something about a computer keyboard that liquids just can't resist. If you fear you're even more likely to chuck an entire venti latte over your input device when you're on the move than when you're sitting at your desk with only your long-suffering colleagues to roll their eyes at your ineptitude, this could be the portable keyboard for you. Its rubber-encased surface makes the typing experience a nostalgia trip for Sinclair Spectrum users; although the action is better than we expected, we had to make a conscious effort to strike each key firmly and directly. Still, the keys are bigger than some and their layout is pretty standard, which does make things easier. The purpose of the ridged tab at the rear of the unit wasn't clear to us; it looks as if it might grip your iPad, but doesn't, so you'll need some other type of accessory to prop it at a comfortable angle while you type. If you don't need the waterproofing, don't pick this keyboard, but it's handy if you do.

**£32** inc VAT

From [amazon.co.uk](http://amazon.co.uk)



## Cygnett KeyPad

▲ Cygnett's ultra-compact Bluetooth keyboard has a chunky feel that reminds us of an older generation of computing products – in a good way. The key caps almost match the horizontal size and spacing of an Apple keyboard, but are compressed vertically to achieve the unit's notably tidy footprint. Depth, on the other hand, is generous: in fact, the long key travel means average to large fingers will tend to catch on neighbouring keys. While dedicated iOS keys are absent, there's a full set of punctuation and modifiers, and Mac-ready F keys. Some keys are exceptionally small, but the Caps Lock indicator light scores points. The Cygnett is a really neatly made little thing that may be an acquired taste.

**£39.95** inc VAT

From [accessoryvillage.co.uk](http://accessoryvillage.co.uk)







## ZAGG ZAGGkeys ProPlus Ultra-Thin

◀ ZAGG invented this type of flat-back keyboard case, which matches the iPad's shape and clamps over its screen to act as a protective case when not in use. This latest iteration, suitable for all models from the iPad 2 onwards, dispenses with the surround that originally held the iPad in place, relying instead on magnets to keep the sandwich together. It's a great system that makes getting the keyboard on and off completely painless. A sleep magnet is also built in.

The keys are of the Scrabble tile variety, like Apple's, with a comparable high-quality action. They're not quite full-size, but having Delete, Tab, Caps Lock, punctuation and full-width Shift keys in their proper places makes up for that, and we found typing felt very natural.

The unique feature of this model, and a partial explanation for its cough-inducing price, is the LEDs that optionally backlight each key in one of seven colours and three brightness levels. If you ever need to type in low light, this is useful; if not, it's still fun.

**£119.95** inc VAT  
From [accessoryvillage.co.uk](http://accessoryvillage.co.uk)  
Info [zagg.com](http://zagg.com)

**EDITOR'S CHOICE**  
★★★★★

## Snugg Ultra Slim Bluetooth Keyboard Case

▶ The Snugg keyboard case looks similar to the ZAGG, and although on closer inspection its sparkly silver finish is plastic, it's neatly built. It's also similarly skinny, and noticeably lighter. The trade-off is that the unlit keys are slightly smaller and their action floppier, lacking the positive response of an Apple keyboard. Still, we found it perfectly usable, and the iPad props up easily and securely in the groove provided. A full complement of keys includes the facility to use the top row as F1, F2 and so on if you pair the keyboard with a Mac.

A sleep magnet is built in to tell your iPad to switch itself off when you use the keyboard as a cover. The Snugg's one drawback is the way it clings on to your iPad 2 or later with small plastic tabs (seen at top and bottom, right). These didn't seem unduly flimsy, and held our iPad 2 convincingly, but getting the keyboard on and off was a wrestle every time. This means the Snugg isn't the ideal keyboard case, but if you like the flat-back format and don't want to spend a lot, it's a good option.

**£39.99** inc VAT  
From [thesnugg.co.uk](http://thesnugg.co.uk)



**The keys aren't quite full-size, but having Delete, Tab, Caps Lock and punctuation in the proper places makes up for that**







## Freedom i-Connex Combi

▲ This keyboard case is packed with innovative ideas. Your iPad clips neatly into a plastic backplate with an unusual perforated design; this is presumably conceived to reduce weight (the whole thing is impressively light), and also provides a welcome bit of grip. The keyboard fits into a recess behind, and has a matching pattern, so it effectively disappears; but its finish is rubbery, so it won't slip around when in use. Nothing except friction stops it falling out, but it only did when we encouraged it.

Attached to the case by an unconvincing Velcro-type strip is a folding panel that protects the screen, much like a Smart Cover. This is cleverly scored diagonally to fold into an open tetrahedron that props up the iPad, held together by the same magnet that tells the device to go to sleep.

The keyboard feels a bit flimsy, but the keys themselves are surprisingly decent. Because some width has been sacrificed, they're also tiny and closely spaced, inviting fat-fingered typos.

We really like what the maker has tried to do here. Sadly, the quality of the finish would put us off choosing it.

**£79.99** inc VAT  
From [freedominput.com](http://freedominput.com)



## Freedom i-Connex 2

▼ If you want a full desktop typing experience, you could carry an Apple Wireless Keyboard, but it's not the most compact accessory. The i-Connex Keyboard is much smaller, yet even more spacious. The trick is that it folds in the middle. Two AAA batteries, rather than a built-in rechargeable, are supplied, as is a tiny but surprisingly effective plastic stand to prop your iPad while typing.

Rather than smooth tiles with spaces between them, here you get traditional closely spaced laptop key caps in the textured finish that computers always used to have. The dedicated iOS functions are divided between a column of small rubber buttons at the left and a group of Fn combinations labelled on letter keys.

While the other keyboards on test all throw off your instincts at first by being slightly undersized, the Freedom is actually oversized compared to Apple keyboards, which we found just as hard to get used to. Thanks to the fold, the G and B keys are narrow and the spacebar is split; our left thumb invariably hit the hinge when we were trying to type a space. It's a compromise, then, but if you have big hands and are sceptical about modern keyboards, you may like it.

**£49.99** inc VAT  
From [freedominput.com](http://freedominput.com)



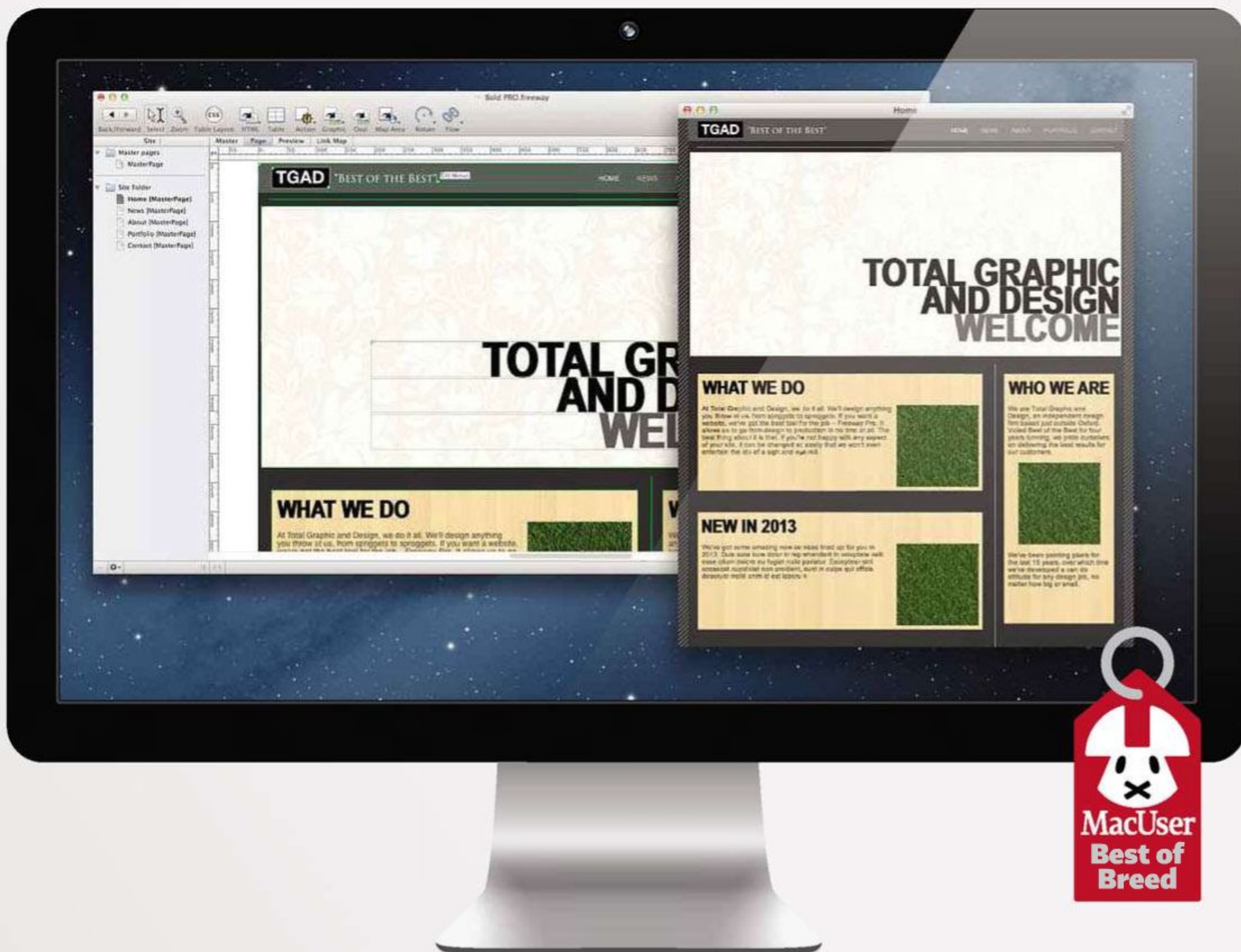
## Freedom Expression

▶ Nothing fancy here: this is simply one of the slimmest keyboards you could choose to carry. It occupies about the same area as an iPad mini, but is wider and shallower. The keys are distinctly smaller than standard, and it'll take some practice to type accurately, but they feel decent and there are no unwelcome surprises in their layout. As with the i-Connex (above), the keyboard won't prop your iPad, but a separate plastic stand is supplied for that purpose, and you also get a travel case.

**£39.99** inc VAT  
From [freedominput.com](http://freedominput.com)







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## STK Bluetooth Keyboard Case

▲ Finished in plain black faux leather with classy white stitching, the STK case has a boxy design that makes it a little bulkier than other options, but solidly elegant.

The keyboard is mounted in a separate section neatly finished in exactly the same style, which is held in place by four magnets; if you didn't know it was detachable you'd never guess, but once you decide to try, it comes away without effort and pops back on, perfectly aligned, as if by magic.

Your iPad 2 or later slips into the fabric frame opposite, with a tab to attach so it can't fall out. Our sample was slightly misshapen around the edge, so it didn't sit quite square, but this seemed like a one-off assembly error, and it didn't give us any practical problems. The back of the case then folds so that the bottom edge of the iPad can come forward into a groove behind the keyboard, propping it at a suitable angle.

It all works exactly as intended. The keyboard itself is superb: its tile-style keys are pretty much full-size, though spaced a little closer than on a desktop keyboard, and have a longer travel and more rattle than average, giving a reassuringly traditional click.

While you're typing, the generous flap that holds the case shut acts as a wrist rest. This is very comfortable, unless you're in a tight space without enough room for it, in which case there isn't an easy way to fold it aside, a small but occasionally vexing flaw.

At this very reasonable price, the STK is an excellent buy.

**£49.95** inc VAT

From [accessoryvillage.co.uk](http://accessoryvillage.co.uk)



## KeyCase iPad mini Keyboard Case

◀ This stylish model tries hard to solve the problems of all iPad mini keyboard cases. It's wider than the device, making more room for the magnetically attached keyboard, whose key tops are closely spaced to maximise their area. But we still found accurate typing eluded us. A fold-out prop holds your iPad at an angle, slightly raised for visibility. It's really not bad, and reasonably priced. ■

**£39.95** inc VAT

From [mobilefun.co.uk](http://mobilefun.co.uk)





# Reviews

'The virtual keyboard was one of the first features Steve Jobs envisaged for the iPad' → 84



**Key** Works with Mac; iPad; iPod touch or iPhone

## IPAD APP Panic Status Board

*Instant graphification*

**S**tatus Board, from long-time Mac and iOS developer Panic, is designed to provide at-a-glance information on whatever topic is important to you. Like OS X's Dashboard, it consists of widgets that you add to your display and then position and resize to suit.

Status Board comes with preconfigured widgets for information such as weather and time, both of which you can set to your current location. You can also choose whether to show a digital or analogue clock. And there's an RSS widget you can set up to display any RSS feed you choose. The other included widgets display information from your email accounts, Calendar and Twitter feeds. You choose which email and Twitter account, and which Calendar you want to hook into and what information you want to display. So you could have one widget displaying the inbox for one email account, and another that shows the unread message count for a different account.

All these widgets are useful, and having your iPad display and update the data

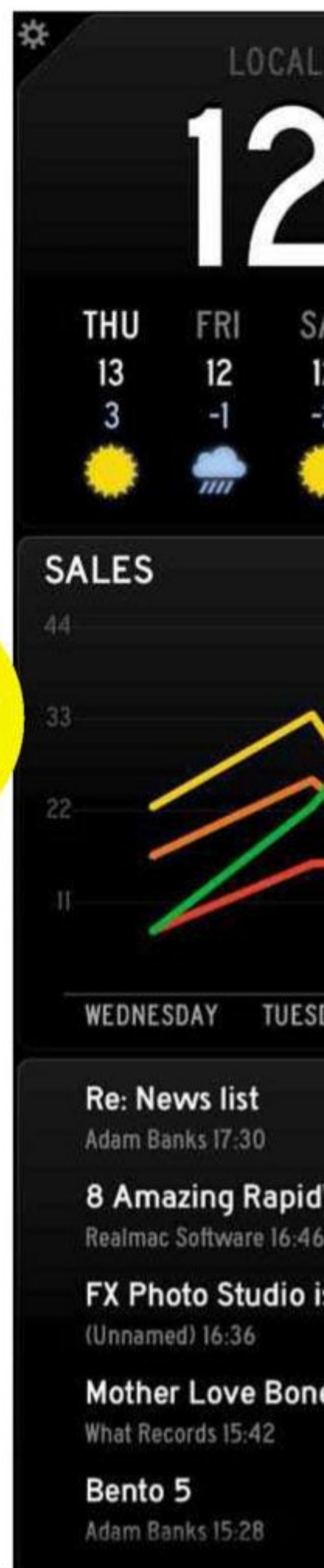
from them automatically is a great way to use its screen as, well, a status board. But Status Board does much more than that. In addition to the widgets we've already mentioned, there are three 'pro' panels: Graph, Table and Do-it-Yourself. Each takes data you create and publish on a web server, and then formats and displays it. Graph takes either a CSV or JSON file and creates a chart from it. All you need to do is knock up a table in Excel or Numbers, save it as a CSV, stick it on a web server, or even your Public Dropbox folder, and tell Status Board where to find it.

**YOU CAN USE** the same CSV file in Table to display your data in tabular form, and by adding a row at the top, you can specify the relative width of each column. If you want more control over how your table looks, create an HTML table using <table> tags and point the Table panel at that. Do-It-Yourself panels are web pages. Anything that can be accessed via a URL will work, although you'll want to format it so it fits within →



### No fear or favour

All reviews are the result of hands-on testing. MacUser does not review products based on press releases, box blurbs or advertising budgets. Our testers are everyday practitioners as well as experienced journalists. We don't tell them what to say. They just tell you what they think. Ratings and awards are at the discretion of the editors.



REVIEWS RATINGS GUIDE 🐻 Poor 🐻🐻 Flawed 🐻🐻🐻 Decent 🐻🐻🐻🐻 Recommended 🐻🐻🐻🐻🐻 Exceptional



↓ **Any which way** Each module can be configured in a number of ways. Here, the Twitter widget displays mentions and the email module displays subject lines from one account



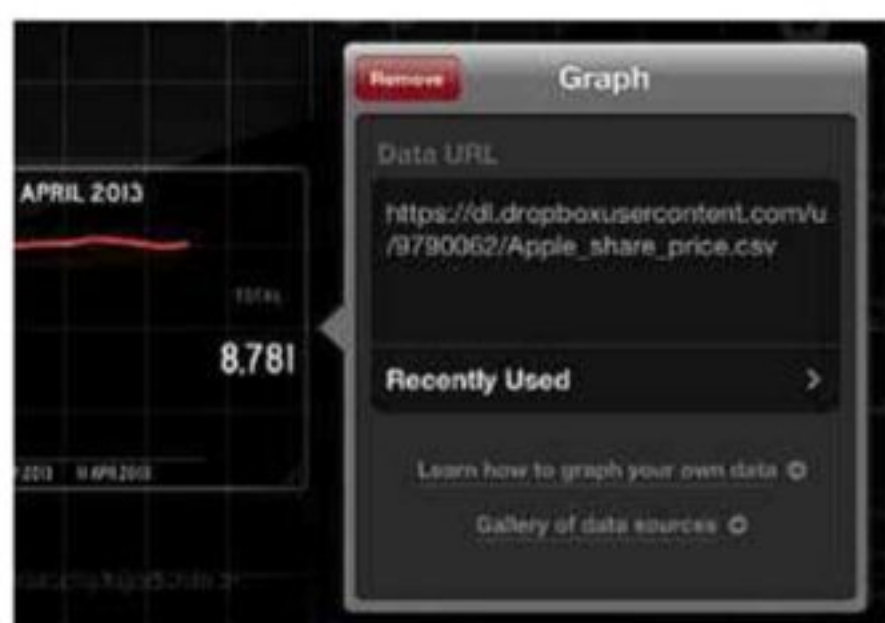




↑ **As you like it** Modules can be resized easily, so making them fit in portrait rather than landscape orientation doesn't take long



↑ **Tube smarty** Third-party widgets are already beginning to appear. The one from TubeTracker shows the current status of London Underground lines



↑ **Graph out loud** Using the graph module is easy, even if looking at Apple's stock price isn't

## Panic Status Board

Dashboard app for iOS

From App Store

Info panic.com

**Pro** Easy way to track data from multiple sources • Highly customisable • Looks fantastic

**Con** Currently no AirPlay mirroring • A couple of panels crashed during testing

**EDITOR'S CHOICE**

**£6.99** inc VAT



**STATUS BOARD** → Status Board's panels and is consistent with the app's look and feel. Helpfully, Panic provides detailed instructions on how to use all three pro panels.

We found that Status Board worked very well and was easy to set up. That's helped enormously by the ingenious startup guide that opens the first time you launch the app. Once you're up and running, you're presented with a populated Board. Tap the gear at the top left and you can add and remove widgets, as well as resize and reposition them.

There are quite a few third-party widgets available already – we found one that displays the current status on London's Tube lines and allows you to see incoming and outgoing trains at any station.

Status Board has one more trick up its sleeve: the ability to send output to an HDTV using an HDMI cable or via AirPlay. The panel display is reformatted for the bigger screen, rather than just mirrored. Regular AirPlay mirroring isn't supported, but Panic says this may be added in a future update. Output to an HDTV costs, at the time of writing, £6.99 as an in-app purchase. It's

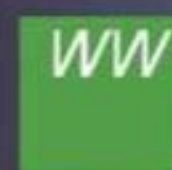
**Status Board is a joy. It looks terrific and is genuinely useful. Definitely worth the £6.99 asking price**

likely to be used by large organisations on a dedicated screen and iPad, rather than by casual home users. And if you can fork out for an iPad and screen to use as a Status Board, an extra £6.99 won't break the bank. The price is labelled as a Launch Special, however, and Panic hasn't confirmed that it won't rise.

We had one issue where the RSS widget crashed during testing and one where the Weather panel lost some of its data. Forcing them to reload solved the problem.

Status Board is a joy. It looks terrific and is genuinely useful. Whether you want to keep track of your website's traffic on an hour-hour basis, or just want an easy way of checking Twitter and email, it's well worth its £6.99 asking price. ■ **Kenny Hemphill**





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MAC APP

# Komplete 9

*You to me are  
everything*

**N**ative Instruments makes arguably the most extensive range of virtual instruments and effects of any developer around, and several years ago began bundling them together into a collection called Komplete. As the years have passed, it has, of course, added to its stable of products, so Komplete has grown in size to encompass everything released since the previous version. And so it is that Komplete reaches its ninth incarnation, with the regular bundle comprising 35 products and the Ultimate bundle stretching to a whopping 65.

The instruments mostly work in stand-alone as well as plug-in mode, and the effects work as plug-ins inside your host software such as Logic, Cubase, GarageBand or Pro Tools. The idea is that although your music-making software will have come with some virtual instruments and effects, you can generally achieve more varied and professional-sounding results by adding third-party models.

The collection runs in all major formats, including the latest Pro Tools AAX. This means that as long as you have a fairly recent Mac, you'll be fine. Komplete's minimum



↑ **Drum machine** The Kontakt environment is host to much of the sample-based content, as well as being a powerful sampler in its own right

→ **Back in time** The new Monark synth models a classic analogue synth for fat, retro sounds



## Native Instruments Komplete 9

Virtual instruments and effects suite

**From** native-instruments.com (sold in Euros at €499) • Update from Komplete 2-8 £127 (€149) • Upgrade to Ultimate £426 (€499) • Komplete 9 Ultimate £853 (€999) • Upgrade from Komplete 2-8 £554 (€649) • Update from Komplete 8 Ultimate £340 (€399)

**Needs** OS X 10.7 or 10.8 • Intel Core 2 Duo • 2GB RAM (4GB recommended)  
**Pro** Excellent range of instruments and effects covering all kinds of musical bases • Well designed with a gentle learning curve • Infinitely tweakable • Stable • Sounds great • Ultimate collection comes on its own hard drive • Hugely expands the sonic potential of any setup • Cost effective versus buying individual products

**Con** Installing Regular from 12 DVDs takes a while

**BEST OF BREED**

**£426** inc VAT



system requirements are modest enough, but a faster system with more RAM will definitely provide a smoother ride, especially as you start to load up several plug-ins in a project.

The regular Komplete 9 collection comes on a series of 12 DVDs, comprises 12,000 sounds and occupies 120GB of hard drive space. The Ultimate collection comes on a dedicated USB hard drive and is much larger, at 370GB fully installed with 16,000 sounds, the size difference being a result of many additional sample-based instruments. You can install these vast sample libraries on external hard drives easily, so you needn't tie up big swathes of space on your MacBook with them, for example.

**THE REGULAR BUNDLE** actually has most of the flagship products, so it's far from being an entry-level solution. For example, you get Kontakt 5, a powerful sample-based environment for hosting, building and editing your own instruments that's also the host for many other, third-party instruments. You're provided with a lot of great-sounding piano instruments that run in Kon-

**Guitar Rig 5 Pro has special effects and can be employed to process any sound you can think of**

takt, as well as Session Strings and Vintage Organs, and any instruments you may buy later will probably be hosted in Kontakt or the free Kontakt Player.

Next up is the excellent Guitar Rig 5 Pro, an effect unit with fantastic amp, speaker and pedal modelling. As well as being used extensively for live and studio performance, it has some advanced special effects capabilities and can be employed to process vocals, drums and any other sound you can think of.

Then there's Reaktor, a heavyweight synth design environment that – thankfully for the less adventurous – comes with some ready-made futuristic synths. There are a ton more synths, too, including the brand-new Monark monophonic model, Absynth 5, which is beloved of sound designers; FM8; and Massive, which is particularly





↑ **Pedal power** Guitar Rig Pro 5 has a modular approach to effecting guitars, basses and almost anything else you care to put through it

↗ **Resounding success** Supplement your existing plug-in collection with lush reverbs and other special effect units

→ **With knobs on** Studio grade effects are also provided, including the excellent Solid Mix Series of studio modules



good for modern electronica. For beats, there's the new Battery 4, a redesigned and much-streamlined drum sampler and editor. This is particularly good fun and, as well as being accessible, has a great depth of tweaking and editing features, as well as some excellent drum kits.

**THERE'S ALSO THE** Abbey Road 60s drum collection, Studio Drummer and the West Africa collection to provide more varied beats. Some effect plug-ins are bundled with the regular version, including the Solid Mix series, Reflektor Reverb and some taken from Native Instruments' flagship DJ application, Traktor. All of these products have audio and video demos on the company's website for you to check out.

At this point, it's worth pausing to consider who might be better off with the regular bundle than the Ultimate, which is double the price. Unless you're a semi- or full professional, the regular Komplete 9 is likely to serve you perfectly well and will massively expand the sonic potential of your recording and producing setup. The content is sufficiently different and complementary to the kinds of tools you get with, say, Logic

or GarageBand that you won't be replicating stuff you already have.

If, however, you're looking to really push the boat out, the Ultimate version is a bit of a juggernaut. You get everything already mentioned, of course – there's a detailed comparison on Native Instruments' website – but much more besides. There's a stack more cinematic film scoring content in the form of Evolve Mutations 1 and 2, Session Horns, Action Strings and Damage, which is pretty much a Hollywood soundtrack in a box.

Like the other products, these are available separately, but buying the whole bundle quickly becomes more cost effective than buying them individually over time. You get the Scanner and Razor synths and more pro tracking and mixing effects, including the new RC reverbs, VC compressor series and several more.

When it comes to beats, the Ultimate collection is greatly expanded, providing a bunch of more exquisitely sampled drum kits in various styles and all with full sound shaping controls, and there are sample-based guitar and bass instruments, handy for getting pro-sounding riffs and melodies even

if you're not a player. There's also Alicia's Keys, an officially modelled version of, well, you can probably guess.

Native Instruments' product line-up is fairly comprehensive, and it's also remarkably stable and efficient. These are serious tools, of course, so a newer Mac will always serve you better, but nonetheless everything hums along nicely in everyday use. Komplete 9 really is an excellent collection of synths, sampled 'real' instruments and effects and gives you a near-inexhaustible palette of sounds and processors to work with.

**NOT ONLY THAT,** the collection is accessible, too, with the majority of the tools not requiring a PhD in electronics to work out. Many people will be perfectly happy with the regular bundle, which gives you all the core products plus some nice extras. Furthermore, upgrades from previous versions of Komplete are particularly attractively priced.

Professionals and especially film composers or sound designers will love the extra depth and scope afforded by the Ultimate bundle's additions. If you're working at that level you can consider it an investment – and a good one at that. ■ **Labs team**



## MAC AND IPAD APP

Indeeo  
iDraw

Now on the Mac

**I**Draw is one of the leading vector drawing programs on iOS. Featuring Bézier curves, gradient fills, adjustable strokes and special effects such as drop shadows and glows, it provides a drafting environment that's slick, easy to use and reasonably powerful. Now iDraw has added Smart Guides and path snapping, and has become the first iOS drawing app to integrate seamlessly with its Mac equivalent. Files are exchanged via iCloud, and a file saved on one is available on the other in seconds.

To ensure compatibility between different devices, Indeeo has made the drawing environments as similar as possible. The iPad's smaller screen means some UI elements have to work differently, so floating, tabbed panels on the Mac version become pop-up panels on the iPad. Other small variations are harder to understand: the Mac version uses a dark theme for all its panels, featuring white text on dark grey, but that theme appears on the iPad only in the toolbar, while all other UI elements use a bright, black-on-white colour scheme.

The toolset in iDraw features most of the tools you'd expect in a vector editing app. The Pen tool produces Bézier curves that can be edited either using the dedicated tool or by Cmd-dragging on an anchor point or Bézier handle. Curiously, you can't adjust a shape by dragging directly on the curve.

The look of objects is set by the Appearance panel, with separate panes for



#### ↑ Keeping tabs

iDraw on the Mac offers a slick, comprehensive display of all the design elements, with tabbed panels for ease of access

#### → Face the panel

The artwork looks identical on the iPad, although panels can sometimes get in the way



stroke, brush and fill. You can choose from flat fills using swatches, or RGB, CMYK or HSB sliders, or opt for either radial or linear gradients. You can also select an image as a fill, in which case the image is scaled and rotated through the Appearance panel. You can also add multiple fills and strokes.

Objects can have labels detailing the dimensions, although you can't have more than one label per object, which means height or width, but not both. There's also an Effects panel, which controls the opacity and settings for both stroke and fill, as well as shadows and glows. You can choose to add additional strokes and fills to single objects, extending the range of possibilities.

Transfer modes (Multiply, Hard Light and so on) are set on a per-layer basis, which is a surprising choice. You can create as many layers as you like and drag to reorder them, as well as switch their visibility on and off.

The drawing tools include rectangles, stars, ellipses and polygons, with somewhat odd control systems: the relation between the interior and exterior points on a star are set using a slider marked Edge Length and measured in

**A few niggles aside, no other drawing app lets you switch between Mac and iPad with such ease**

points. This is, of course, a meaningless unit, as it bears no relation to the size at which you're going to draw the star. Fortunately, the tool's icon changes to reflect any numerical changes you make.

A novel Shape Library includes not only architectural objects and furniture for floor plans, but iPhone UI elements as well. There are also tools for performing Boolean operations on paths, as well as controls for aligning and distributing objects.

The developers have attempted to make the Mac and iPad drawing experience as similar as possible on both devices, but there are times when a drawback on one means an omission on the other, resulting in a poorer user experience. For example, in just about every Mac app that uses a Pen tool, we're used to being able to hold the

### Indeeo iDraw 2.2 for Mac and 1.5 for iPad

Drawing app

From Mac App Store • iPad version £5.99 from App Store

Info indeeo.com

Needs OS X 10.6 • iOS 5

Pro Toolset effectively replicated between devices • Useful controls

Con Sometimes awkward interface • Poor typographic control

£17.49 inc VAT





#### → Lens flair

The ability to add multiple fills means a circular gradient with transparency can be placed on top of a linear gradient, producing this lens flare effect

#### ↓ Any colour you like

Blend modes can be applied to whole layers, rather than objects, producing complex colour interaction



Shift key when drawing a point to make it directly in line, vertically or horizontally, with the previous point; and we expect to be able to hold Shift when dragging a point to move it in an orthogonal direction. You can't hold the Shift key on an iPad, as the keyboard disappears when it's not in use, so this functionality has been removed, both on the iPad and on the Mac versions.

**YOU CAN ONLY** select and edit objects on the active layer. This works well on the iPad, where the absence of a mouse might lead to inaccurate selection, but makes less sense on the Mac, where the inability to make a selection becomes an irritation.

Transformation tools occasionally behave strangely. You can use the Rotate tool to freely turn an object, and a readout at the top displays the rotated angle. Or you can choose a rotation angle from the pop-up menu in the readout itself, but nothing happens until you then press the Rotate button. And while iDraw remembers if you've rotated an object, the Rotate tool doesn't, always resetting itself between operations.

The interface sometimes gets in its own way. On the Mac, selecting a swatch in the

Appearance panel pops up a picker in which you can drag sliders to adjust a colour and its transparency. But if the element you want to change is near the bottom of the panel, half the controls will disappear off the bottom of the screen – and there's no way to reach them. On the iPad, pop-up panels can't be moved, which means they often appear on top of the artwork.

Typographic control could be improved, as there's no kerning facility and the default letter spacing is poor. Type also raises the problem of transferring documents between iOS and Mac: if there's a font you particularly like on the Mac, there's likely to be no way of getting it onto your iPad – the only option is to turn the font to outlines first.

Although there are some niggles, the overall experience of using iDraw on both platforms is one of smooth interaction. No other drawing app lets you switch between Mac and iPad with such ease, and the coherence of both the tool set and the approach means it's easy to pick up on one where you left off on the other. The developers have done an excellent job here, and the result is a powerful combination that makes design truly portable. ■

**Steve Caplin**



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MAC APP

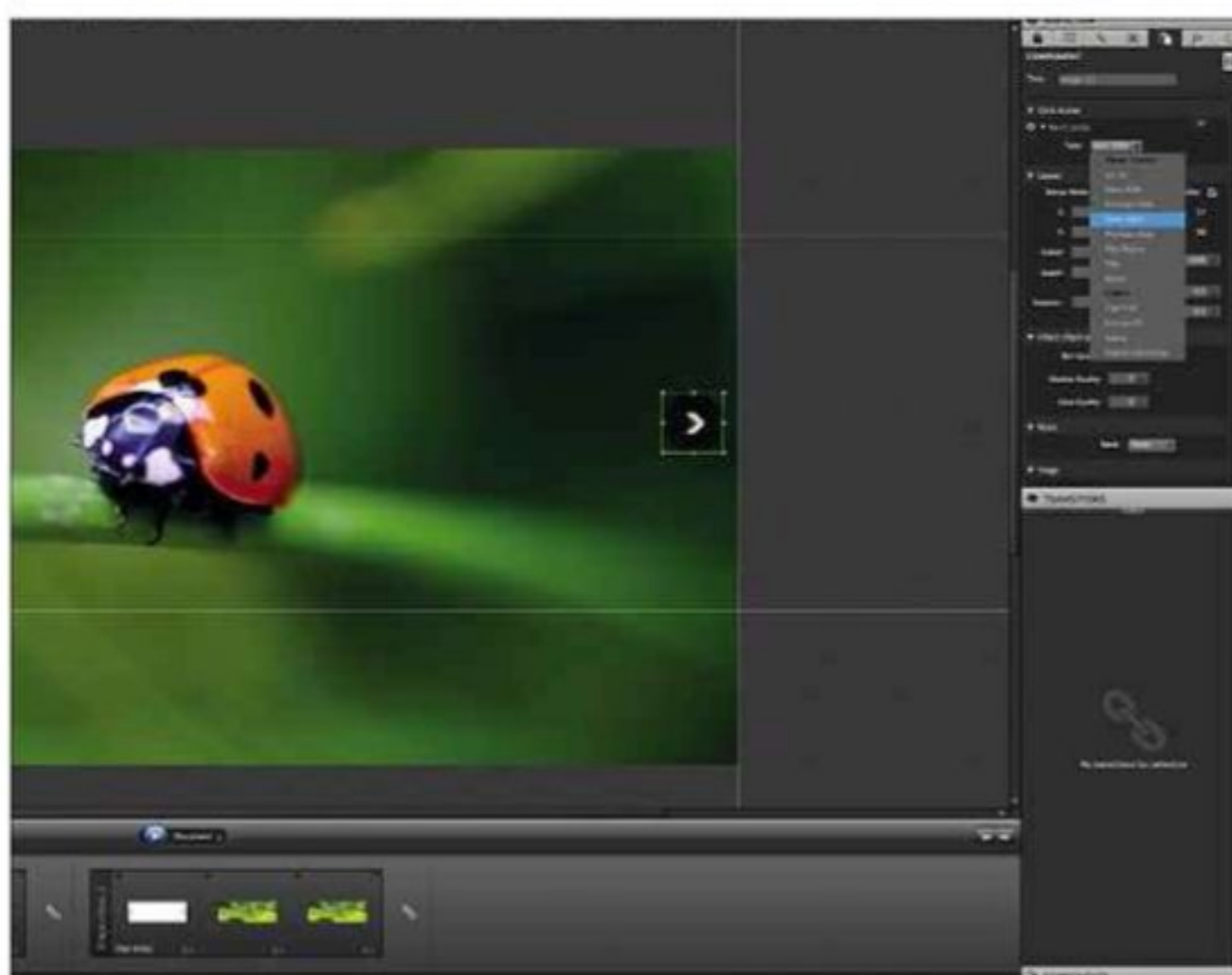
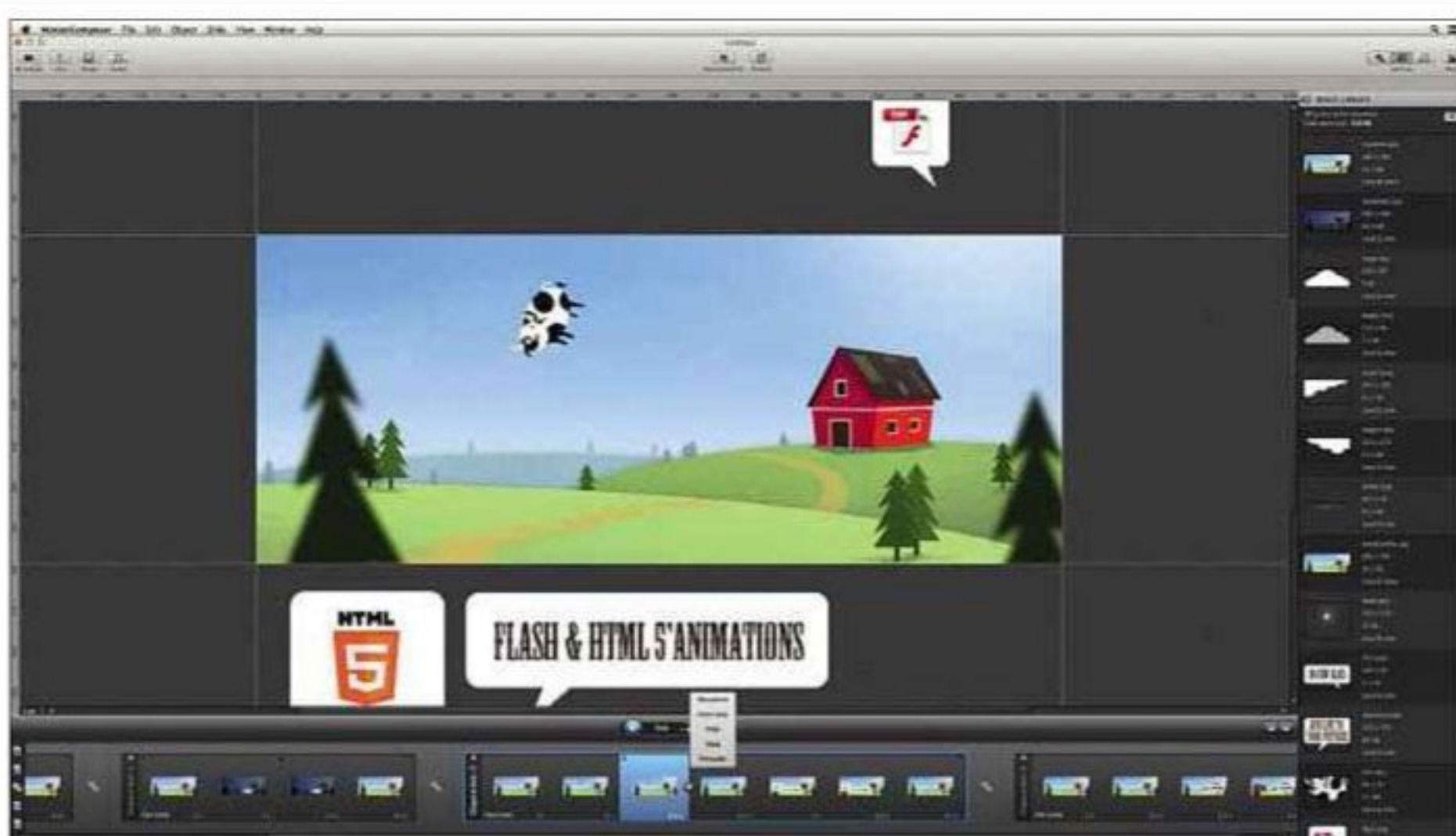
# Motion Composer 1.6

Flashback

Ever since Steve Jobs sucker-punched Flash, the web industry's been scrabbling to deal with the fallout. Flash's exclusion from iOS dealt a blow to the once-ubiquitous web technology from which it never recovered. Today, the plug-in has beaten a hasty retreat from mobile, while even on the desktop Adobe is repositioning Flash technology as a means of creating rich-media experiences, online games and packages for app stores. For everything else in terms of online animation and interactivity (beyond basic links), you're supposed to use web standards: HTML, CSS and JavaScript.

Designers who used to crank up Flash and fire out animations for the web have therefore been caught short. MotionComposer aims to bridge all kinds of gaps, providing you with a straightforward means of crafting animations with basic interactivity, which can then be fired at the internet as a bundle of HTML5 files or, if you're partying like it's 2005, a Flash SWF.

This isn't a unique idea – Tumult Hype is just one example of an app nestled in this space. However, MotionComposer's direction is different from most, eschewing timelines with breakpoints for a slide-based approach. Each slide is a chunk of animation that can be built from individual 'states'. The process of creation is straightforward: drop imported assets on to the canvas, define a duration for the current state, and add new states to progress the animation. There's a certain amount of automation – move an



↑ **Quick as a Flash**  
MotionComposer's templates are, in fact, demos that show off its best features

← **And action...**  
It's not ActionScript, but the actions within MotionComposer enable a modicum of interactivity

object and MotionComposer deals with the 'tween' animation. Additionally, there's some welcome intelligence: each time you drop an item on the canvas, the app offers to hide it on previous states, and moving an item will adjust its position on following states where you've not defined a custom setting.

Beyond shuffling things around, you can define animation settings using the inspector: there are fades and transitions, some slightly overblown but visually appealing text effects, and basic actions. The latter enable you to decide what happens at the start or end of a slide, and basic click actions can also be applied to items. Simply through pauses and Go To actions, you can build a non-linear microsite. Naturally, this adds complexity to proceedings, but the interface remains reasonably straightforward, if occasionally opaque and a little buggy – for example, Shift-dragging an item's corner on the canvas won't retain its proportions, but Alt-dragging it will.

The app's other quirks are more serious. Being able to only open one document at a time is ludicrous in a 'prosumer' product, and, perhaps

**It lets you prioritise HTML5 over Flash in web browsers, but you still end up with code soup**

inevitably, output isn't great. This update does finally enable you to prioritise HTML5 over Flash in browsers, but you still end up with code soup, and so there's zero chance of anyone making manual tweaks and retaining their sanity. This app becomes its own silo, which in part goes against the point of using web standards. Further, we weren't impressed by supposed enhanced compatibility; we can forgive new sound actions being flaky on some platforms, but not web page output partially failing in Internet Explorer 8, a still commonly used browser. A bigger problem, perhaps, is that despite nice ideas regarding usability, it's tough to recommend MotionComposer over the similarly quite-good Hype, which costs a penny under £40. ■ **Craig Grannell**

## Aquafadas MotionComposer 1.6

HTML5/Flash animation tool for web

**From** aquafadas.com (sold in US dollars at \$149)

**Needs** OS X 10.6.8 • 1GHz Intel processor • 1GB RAM • Flash Player 10.0.1 and later

**Pro** Friendly interface • Nicely conceived automation • Inspiring bundled demos

**Con** Inconsistent export • Impenetrable code output • Expensive • Won't work at all without Flash installed

**£130** inc VAT





MAC AND IOS APP

# Wunderlist

*Lest we forget*

**P**ut simply, Wunderlist is a list-making app for Mac, iPhone and iPad to help you organise your busy life. Useful for managing anything from shopping lists to work schedules, its cross-platform nature enables you to keep track of things at home and on the move. Changes made on one device automatically sync with any other devices you might be using, which ensures you're always up to date with deadlines.

Handily, you can also share lists with other Wunderlist users. This would come in useful if, say, you were out shopping: rather than call you to tell you about something they didn't remember, your other half could simply update the shared list, which would automatically update on your device. Coupled with Facebook connectivity, this makes Wunderlist a very useful organisational tool.

Wunderlist's interface is extremely slick and simple. Sidebars and menus work well and consistently across all platforms, which means it won't take long for new users to become familiar with the layout.

New lists are simple to create and share, and everything is easily accessible from the handy sidebar. You can also create sub-lists within lists, enabling you to break down large tasks into more manageable parts. Alarms and notifications are also easily set up and managed.

The Activity Center at the top of the window, is where invitations to lists, or activity regarding any of your currently shared lists are found. This makes keeping on top of any progress being made, as well as any additions to your to-do lists, wonderfully straightforward.

Considering that Wunderlist is brimming with useful features, it's amazing that it costs absolutely nothing, which makes it an essential download for anyone who needs some order in their life. Ironically, the kind of person who generally uses this type of app also tends to be the kind of person who is already rather organised. Don't let this dissuade you, however, as there aren't many apps of this type that are as simple, or as easy to use. ■ **Felix Martin**

## Wunderlist

List-making app for the Mac and iOS

From wunderlist.com

**Pro** Simple to use •

Effective • Free

**Con** Nothing

**EDITOR'S CHOICE**

**Free**



↑ **Bringing order** Wunderlist's interface is easy to get to grips with. You'll find invitations to lists and activity on your shared lists in the Activity Center located at the top of the window

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MAC APP

# Ulysses III

Write here, write now

If you're coming from Ulysses 2, you're in for some hardcore culture shock. Make no mistake: this is all-new, all-different, and there is no sense in trying to apply any of its rules to Ulysses III.

Those aren't our words – they come from the Ulysses coders themselves. The most obvious change to this OS X writing environment is the smart new interface, which adopts the same three-pane approach as Mail, with your local and cloud-based storage in the first pane, documents in the second and the active file in the third. If you prefer to work in full screen, it gives over the whole of your display to just your document, switching to white on black.

Documents are stored on iCloud or in a Container in the OS X Library folder, which for some will be an issue, as they're saved using random file names. They're easy enough to find using Spotlight (they also preview correctly in QuickLook and you can access old versions directly from the File menu), but this makes them difficult to work with externally if you don't first export or copy and paste their contents into a third-party app.

Fortunately, if you don't want to work within the document library structure, there's a workaround: define a new external source in the sidebar and point it to a folder on your Mac or Dropbox. Any documents you create inside it are regular, standalone Markdown files, which use the first few words of the contents for the filename.

We made the mistake of pointing it at the root of our Dropbox folder here, rather than a subfolder, which made it immediately crash and continue crashing on every relaunch until we trashed its preferences.

## Ulysses

Writing environment for the Mac

From Mac App Store

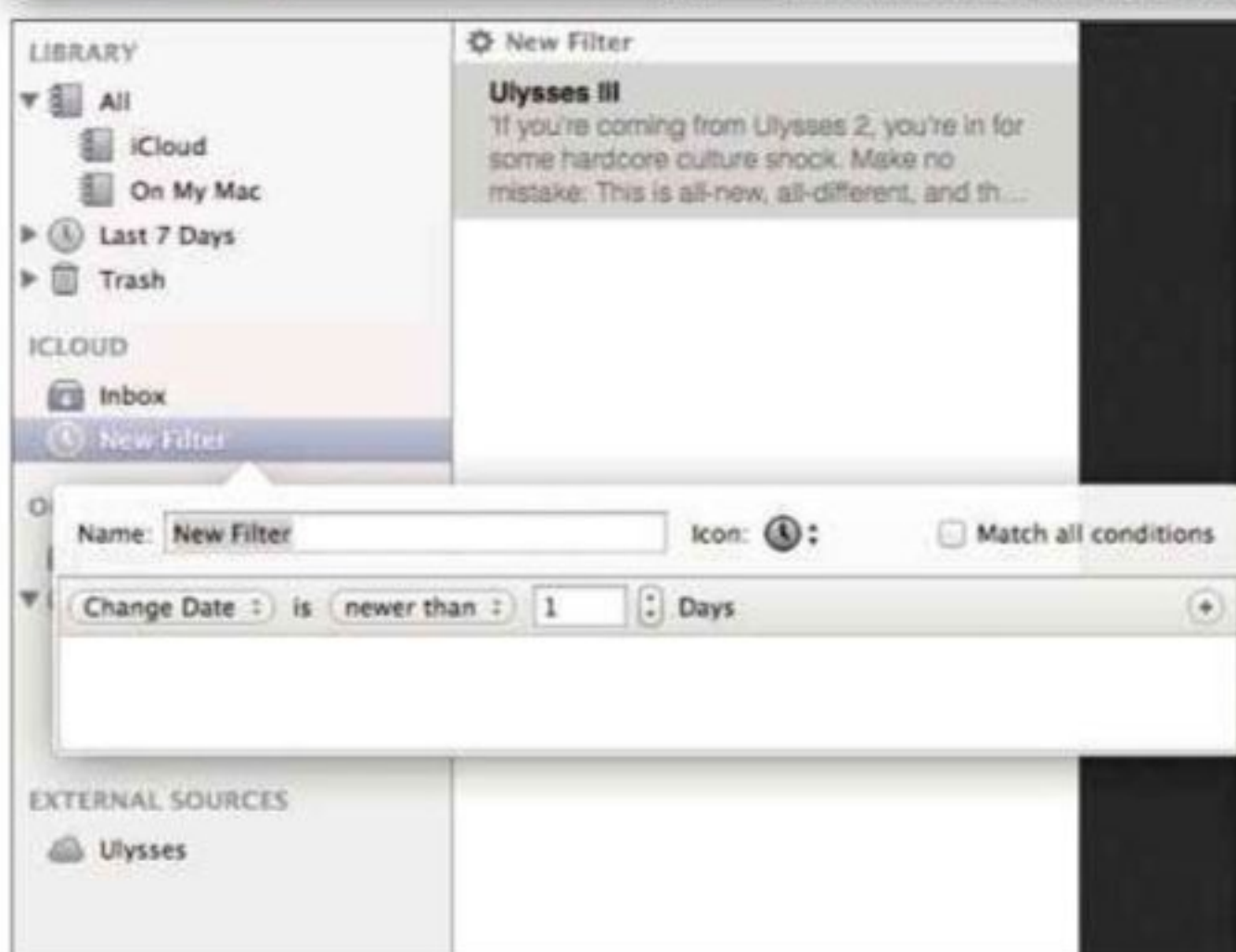
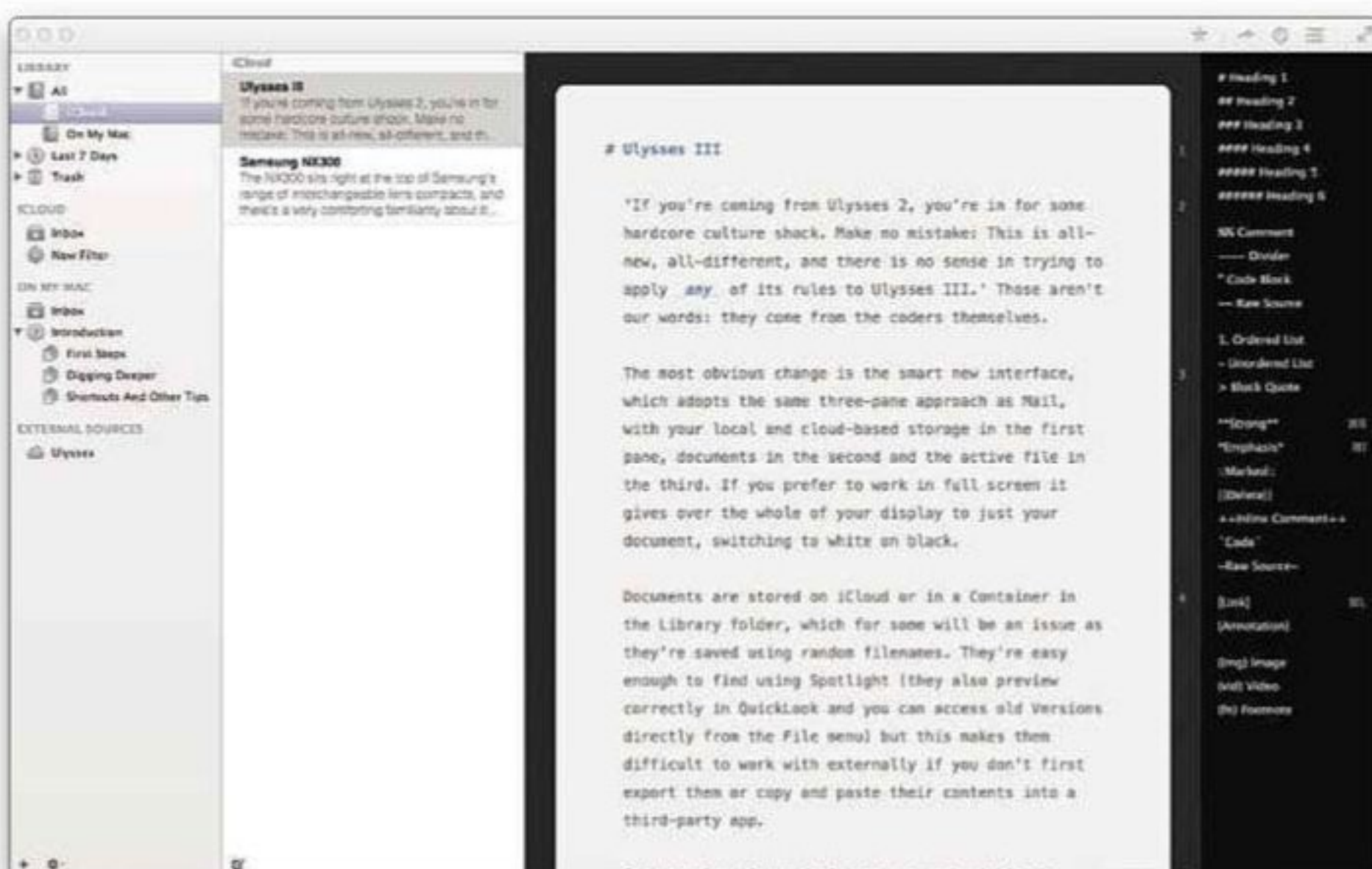
Info [ulyssesapp.com](http://ulyssesapp.com)

Needs 64-bit processor • OS X 10.7.3 or later

Pro Attractive interface • Markdown styling syntax

Con Expensive • Library model isn't so well suited to documents as photos and movies

£27.99 inc VAT



### ↑ Winning format

Ulysses III uses Markdown, Markdown XL or Textile syntax for formatting. If you've not yet got to grips with them, you can call up a permanent help panel and still use some common styling shortcuts

### ← Filter feed

Although there's no ad hoc search function to dig through your library, you can use filters to strip down the list of documents to just those that satisfy particular criteria

You can organise files into groups, while filters let you quickly expose documents changed within a specified period, or that contain specific keywords or text. What it's lacking, though, is a simple search tool that lets you root through your files on an ad hoc basis for those times when you don't want to create a new filter entry on the sidebar.

The original Ulysses was one of the first minimalist writing environments, and that carries through to this release. There's no formatting toolbar, so styling is handled by Markdown, where a hash denotes a heading, square braces mark out a web link, you use asterisks for emphasis and so on. It's easy to learn, quick to work with and well supported by third-party apps such as iA Writer.

You can also call up a handy reference guide that sits alongside your document, and you can still insert much of the syntax using familiar shortcuts. Ulysses previews the result in-line, and if you don't get on with Markdown, you can switch to Textile or the extended Markdown XL. The developers plan to add support for other styling syntaxes such as Fountain, which is used in styling

**If you don't like Markdown, you can switch to Textile or the extended Markdown XL**

screenplays, and we'd like to see them incorporate other Markdown features, such as support for tables.

Document stats are tidied away into a HUD, which when torn away from the UI updates on the fly as you carry on typing, also updating how long your document would take a slow, average or fast reader to work through.

Ulysses works very well as an attractive distraction-free writing environment with sufficient added extras to put it ahead of the crowd. It's only really the 'library' approach to storing your files that lets it down. Fortunately, it's easy to sidestep, but we'd like to see that workaround promoted to become the new default behaviour by the time the first revision arrives. ■ **Nik Rawlinson**





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## Iiyama ProLite X2377HDS

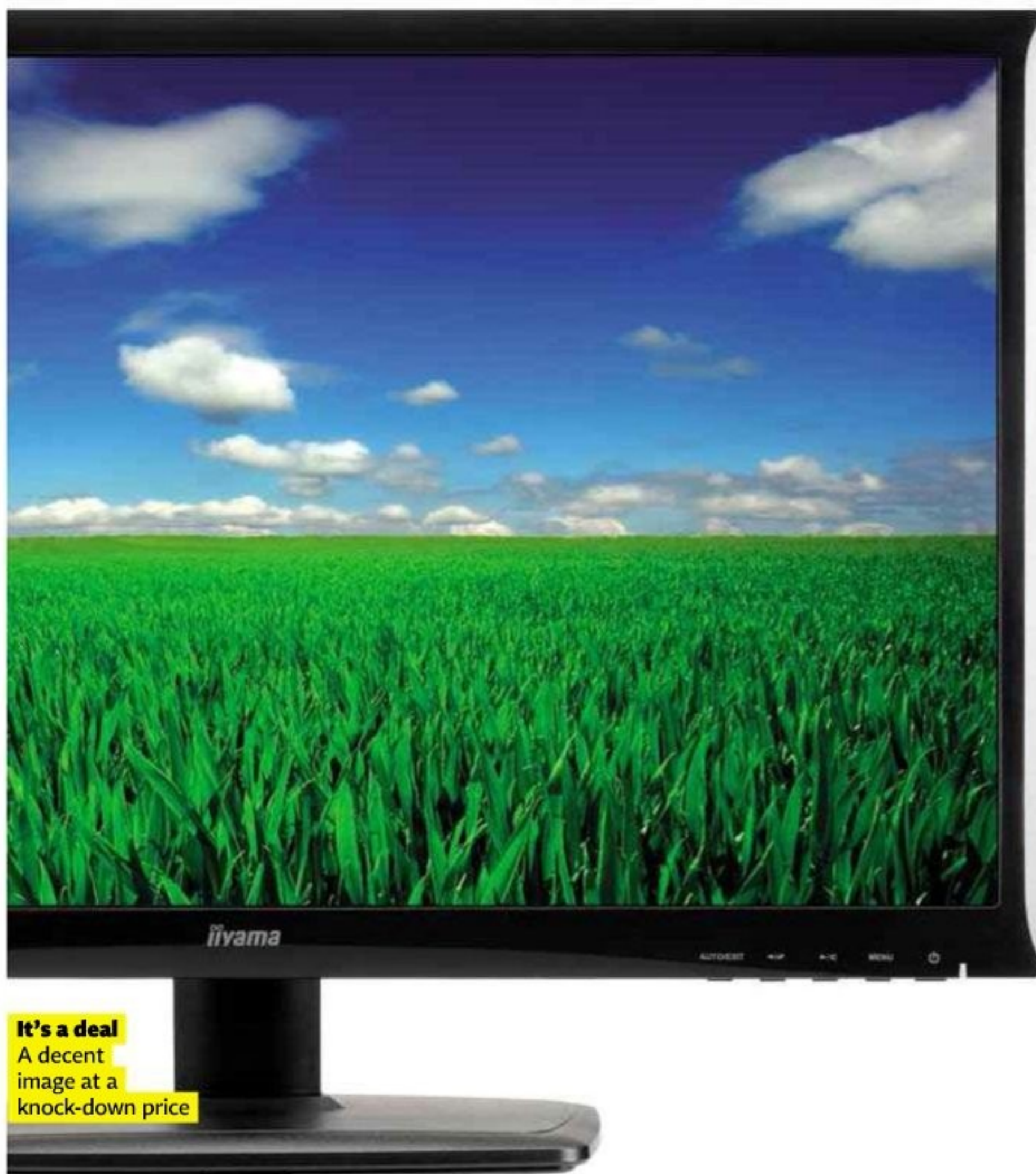
*Cheap thrills*

**O**kay, the Iiyama ProLite X2377HDS won't win any awards for design, but this 23in display ticks all the right boxes if you're looking for an affordable IPS panel with a Full HD (1920 × 1080) display. You'd be hard pushed to beat it if you're trying to build a cheap system with a Mac mini, or even if you're after a large display for occasional use with a MacBook.

Its fixed, matt stand doesn't offer much screen tilt, but it's compatible with VESA wall mounts, giving it a little bit more flexibility. Unfortunately, we found its vertical and horizontal viewing angles to be somewhat restrictive for an IPS panel, and the screen darkened quickly unless we were looking at it more or less straight on. We were pretty disappointed by this, as we normally expect to get much closer to the standard 178° before we see any decrease in screen brightness.

Thankfully, the X2377HDS redeemed itself in our image quality tests, as our colour calibrator showed it was displaying 97.7% of the sRGB colour gamut straight before calibration. We couldn't increase this figure after full calibration, but this is still a highly respectable score for a display that costs less than £140.

Our subjective image tests bore similar results, and our solid colour photos were both bright and vivid. There was, however, a noticeable shadow extending all the way around the edge of the screen, and this had a knock-on effect on the overall uniformity of our reds, blues, greens and whites. However, you'd have to strain your eyes to notice this on a day-to-day basis, and it certainly



didn't bother us while looking at emails or typing up text documents.

Our high-contrast image tests, on the other hand, showed the X2377HDS had excellent contrast levels. Our test photo of a sunlit hut by a beach showed plenty of detail in each area of the picture, and the monitor's matt finish meant we had no problem at all with reflections.

Adjusting the brightness and individual RGB values is very simple, too, as the X2377HDS has four buttons on the underside of the bezel that are all very simple to use. The monitor also has an Over Drive option, which is meant to reduce the blurriness of particularly fast graphics, but we couldn't detect any discernible difference when watching films or playing games.

The ProLite comes with built-in 1.5W speakers, and it has a 3.5mm audio input to which you can attach devices. Sadly, the sound produced by the speakers was pretty mediocre. The volume levels were impressive, but everything sounded like it was underwater.

As well as the 3.5mm audio input, there are VGA and HDMI ports along

**You'd be hard pushed to beat this if you're planning to build a cheap system with a Mac mini**

with DVI-D inputs that support HDCP, which means you can view copy-protected content output from your games console. As usual, you'll need the appropriate video adaptor for your Mac model.

Sadly, all of these ports are concealed behind a big plastic lip on the back of the monitor, which makes them quite fiddly to access. Screwing in the DVI-D cable was particularly challenging unless we turned the monitor upside down.

Despite some annoyances, such as the location of the inputs and the limited viewing angles, the Iiyama ProLite X2377HDS is still a great monitor. It may not have the best viewing angles for an IPS screen, but it's so well priced that any minor niggles are quite easy to forgive. ■ **Labs team**

### Iiyama ProLite X2377HDS

23in budget HD IPS monitor

From dabs.com

Info liyama.com

Pro Bargain price •

Excellent image quality

Con Poor viewing angles

• Fiddly access to inputs

**BEST VALUE**

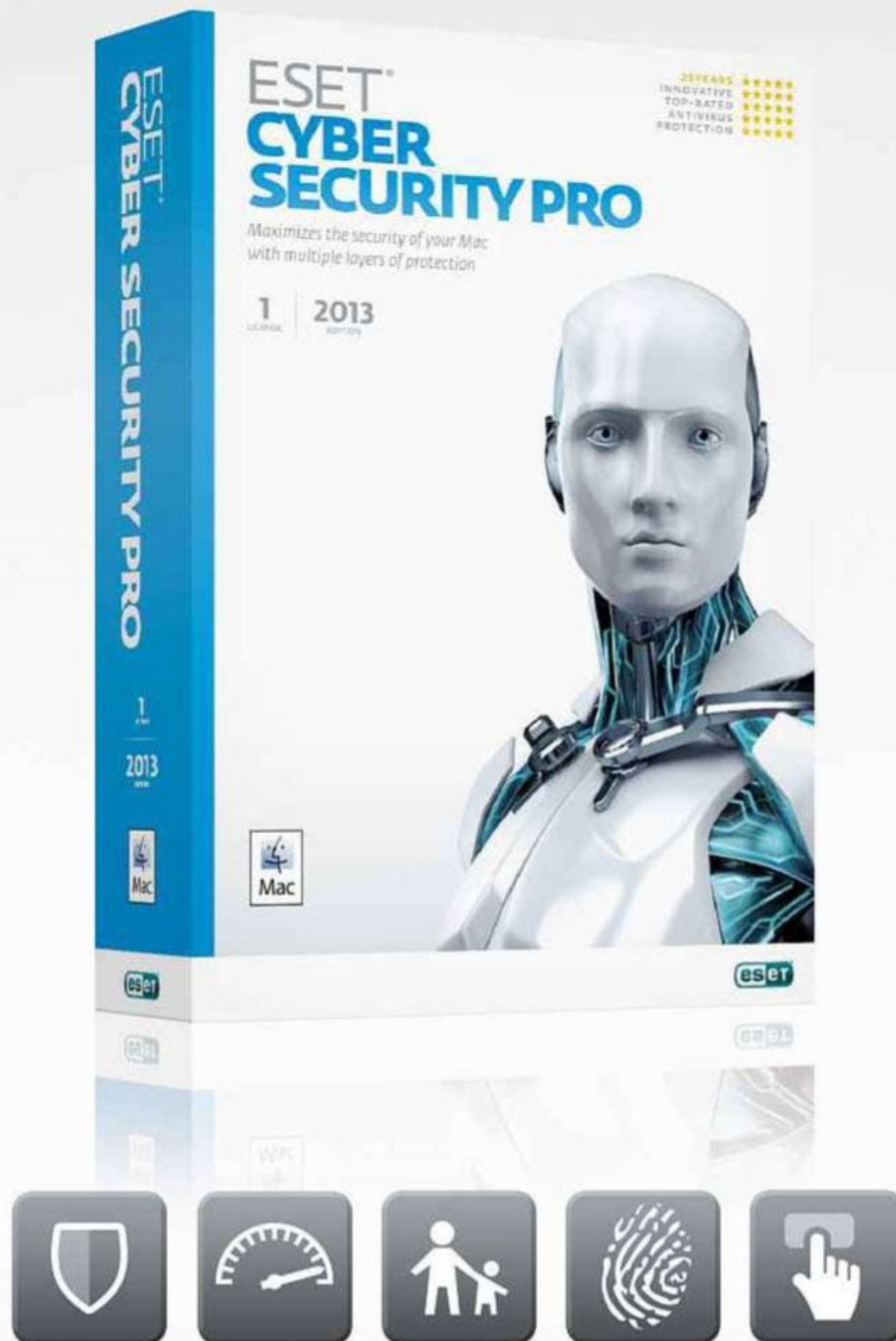
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**SPEAKER**

# Orbitsound M9

*Out of this world*

**W**e loved last year's Orbitsound T9 (MacUser, 6 July 2012, p22), which proved that you could build a tiny soundbar with room-filling stereo, so we were eager to test the company's new, even more advanced product, the M9.

This takes the same case and speakers as the T9, but has been tweaked for higher-quality sound and convenience. Most obviously, this is the first product we've seen from Orbitsound not to use an iPhone dock, relying on Bluetooth instead. This makes a lot of sense, as Apple's decision to ditch the old 30-pin Dock and move to the Lightning

connector with the iPhone 5 makes it harder to make a physical dock. Besides, switching to Bluetooth makes the M9 compatible with practically any smartphone or tablet that won't even fit in the dock, such as the iPad 4. Of course, there's also an optical digital input, as well as stereo phono and 3.5mm minijack inputs, so you can physically connect your mobile device or TV.

Bluetooth isn't the only wireless technology on display, as the subwoofer now has a digital, wire-free connection. This may not sound like a complicated device to add, but a lot of work has gone into it behind the scenes, primarily because of the issues of delay. Delay, or latency, is the time between the sender (the soundbar in this case) transmitting audio and the receiver (the subwoofer) getting it. If that delay is above 30ms, as it frequently is in digital systems, then the soundbar and subwoofer would noticeably be out of sync.

There are ways around this problem, with the easiest solution to introduce a delay to the soundbar so it syncs with the subwoofer. However, when you hook up a TV, all of the sound is then out and you lose lip-sync. Instead, Orbitsound has replaced the wireless antennae in the soundbar and subwoofer with high-gain models. This improves reception and means a smaller buffer is needed, reducing delay. In fact, the company claims the subwoofer has less than 10ms of delay. Subwoofers come pre-paired with their soundbars, although

they each have connection buttons on them should you need to re-pair them. The soundbar is one-to-many, so you could even connect up multiple subwoofers if you think that the bass is too directional.

In addition, Orbitsound has swapped the amplifiers inside the soundbar with all-new digital ones. The side-facing speakers, which give you the spatial audio, have also been tweaked using hi- and low-pass filters, so that they only output the frequencies that give you positional audio.

Okay, that's the science bit over, so how does it sound? Well, we're pleased to report that the M9 sounds even more fantastic than its predecessor. Audio tweaks mean the M9 is slightly less harsh than the T9, generally sounding smoother.

**IT'S EXCEPTIONALLY WELL** balanced, too, with the subwoofer perfectly matched to the soundbar, so that your bass doesn't drown out the quieter parts of your music. Detail was excellent in all of the tracks we listened to, no matter the genre. You can hear every instrument and subtle sound in each track, but there's also room-filling thumping tones that will make the most out of any upbeat number.

Spatial stereo again shows its worth, ditching that sweet spot and letting you place the soundbar anywhere, filling up the room with sound. Just listen to the Foo Fighters' Enough Space and you get the feeling of being surrounded by swirling guitars. Pink Floyd's Wish You Were Here, which starts with radio and rhythm guitar in the right channel before the lead guitar kicks in on the left, sounds sublime.

Our one concern was that as the M9 only uses A2DP, rather than with an advanced codec such as Apt-X, Bluetooth quality was going to let the system down. However, after testing it by switching the inputs on our phone between Bluetooth and the headphone output, we were hard-pushed to tell the difference. Besides, there are com-

## Orbitsound M9

Bluetooth soundbar

From johnlewis.com

Info orbitsound.com

Needs Bluetooth

Pro Fantastic, room-filling audio

Con Nothing

**BEST OF BREED**

£300 inc VAT





paratively few devices that support Apt-X, anyway and the iPhone is one model that doesn't. Given the convenience of still being able to still use your phone to choose tracks and browse the web and read email, we'd take Bluetooth over a dock any day.

Bluetooth pairing works by 'grabbing' your phone when it's needed. That is, when you walk in the door, your phone doesn't automatically pair, so that every sound is sent to the M9; instead, you hit play on the remote control or hit the Bluetooth button on the soundbar to connect to the phone.

We also connected a TV to the optical input to test the M9's audio prowess on films. Spatial audio isn't virtual surround-sound, more a technology for taking stereo and making it fill a room. In that respect, you lose some of the detail in a 5.1 soundtrack, such as positional rear audio, but the M9 makes the most of the stereo making it feel like it's coming from all around you. Testing it with the opening scene in *Star Trek*, where a young Kirk is driving in a convertible, while being chased by a cop, we thought it sounded fantastic.

That extra oomph from the subwoofer and the clean detailed audio from the soundbar

really brought the scene to life. Switching to a scene with more talking, the audio track was much clearer and cleaner than using TV speakers alone.

**CONTROL OVER THE** sound comes down to bass and treble controls, which are all you really need. However, as the subwoofer is active, you've actually got a bit more control over bass with this model. To start with, you've got an analogue-style control on the back of the subwoofer, which lets you set its master volume; you can then tweak the bass using the controls on the remote, which really equate to a gain control.

Moreover, solid-state memory now means that your audio settings are saved, so you don't lose your finely tweaked sound in the event that you unplug the M9 or experience a power cut.

The entire system has also been fine-tuned and everything just feels that bit more polished. Switching inputs, for example, fades out your current input and fades in the new one. It also has intelligent volume control with an anti-party mode, so if you've been listening to very loud music of an evening, in the morning the T9 resets

## Listen to the Foo Fighters' Enough Space and it feels like you're surrounded by swirling guitars

itself to a quieter volume, which is useful if you're nursing a hangover.

The remote is the same as the one that was bundled with previous models, with playback, track skip, volume, bass and treble, and input select. However, if you're primarily using Bluetooth, you'll find that you don't need the remote very often and its primary purpose is for switching inputs and, when you're using it with TV, changing volume.

The Orbitsound M9 is an improvement in terms of sound quality and flexibility over the T9. Our fears about Bluetooth were proved to be largely irrelevant, and the flexibility it gives you is a worth any minor loss in audio quality. With room-filling, high-quality sound and its amazing spatial stereo technology, this is the best mini soundbar you can buy. ■

**Labs team**





## TV RECEIVER

## Tizi for Mac

Telly anywhere?

**T**izi for Mac is a digital terrestrial TV receiver that enables you to receive free-to-air TV channels on a Mac via a USB port. The device itself is tiny – smaller than a USB flash drive – and is supplied with two 15cm extending aerials that plug directly into the device or can be mounted on a magnetic base on the end of a 1.5 metre cable. There's also a connector for a coaxial aerial socket. It all comes in a neat black package smaller than an iPhone box.

To use the hardware, you need to download and install the Tizi TV app, which provides a TV viewer, EPG, program recording and even some basic editing tools so you can clip recordings and remove ads. Although the box contains no instructions beyond 'get the app, connect the Tizi, open the app', you don't really need any more, since the app is well designed and easy to use.

The first job is to scan for channels, and the success of this will obviously depend on the signal strength and the aerial position. With the aerial connected directly to the Tizi and sticking upwards from our MacBook Pro, we pressed the scan button and sat back nurturing low expectations. So we were unsurprised when the Tizi failed to find a single channel.

Next, we connected the extended aerial, which adds a metre and a half of cable and a magnetic base, allowing you to attach it to the nearest filing cabinet or other metal surface. Trying hard to suppress the natural inclination to inflated expectations, we hit the rescan button. This time we met with more success and got 22 channels, including BBC, ITV and Channel 4. Further tweaking of the aerial bumped that figure to 30. We didn't try connecting the coaxial cable to the



↑ **Skip the ads** The basic editor allows you to trim clips and remove those pesky commercials



rooftop aerial, as it's unlikely many people will bother with this, although if you like the idea of watching TV anytime on your iMac at home, it could be an option.

Which itself begs a broader question – why, in the era of fast broadband connections and ubiquitous wifi, BBC iPlayer, ITV Player, 4OD and the rest, would anyone bother with something like Tizi for Mac? Well, the answer is that wifi isn't actually all that ubiquitous – at least not as ubiquitous as a digitally broadcast TV signal – and the Tizi can pick up a signal in many places inaccessible to wifi. And, of course, not all channels offer a live internet feed.

The app itself is an absolute pleasure to use. The currently selected channel is displayed in a window with channel information, channel listings, playback control including program pause and shift, and editing overlays that disappear from view until you mouse over the window. The viewer window can be resized, set to float on top and displayed full-screen. The EPG is basic, but it works, is searchable and can record programmes up to a week ahead.

**The extended aerial bumped up the channel count to 30, including BBC, ITV and Channel 4**

Picture quality is pretty good, the only problem being when the signal deteriorates and the action stutters or stops. Programmes are recorded as MPEG-2 720i files at around 4MB/sec, so are of good enough quality to watch on a 15in MacBook. As it has no HD support, the Tizi isn't for those of you hooked on high-def.

The program list can be re-ordered, but it would be nice to be able to make a favourites list or otherwise organise channels into groups for news, sport, entertainment and the like. Other than that, it's hard to find anything to be critical about. At under £40 (exclusively from Amazon) it's an inexpensive and fun way to get TV on your Mac when there's no wifi available. Simple as that. ■

**Ken McMahon**

## Tizi for Mac

Mobile DTT television receiver

Info [tizi.tv/en](http://tizi.tv/en)

Needs OS X 10.7 or later.

**Pro** Tiny • Simple, fun and affordable way to watch TV on the road

**Con** Favourites would be nice • DTT is DTT

**£39.99** inc VAT





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codemasters™





# Panasonic Lumix DMC-GH3

*Victor in video*

**T**he GH3 is Panasonic's latest flagship Micro Four Thirds camera, and it's much more than a revamped GH2. With its larger, weather-sealed magnesium-alloy body, array of buttons and dials, optional battery grip and four-figure price, it's aimed at a more demanding user than any compact system camera (CSC) before it.

Buy it with the new 12-35mm f/2.8 weather-sealed lens and it will set you back £1,995. That's more than the magnificent Nikon D600 (MacUser, March 2013, p108) costs with its kit lens. Can the GH3, with a sensor just a quarter of the size, really compete?

The answer is an emphatic yes. It looks, feels and behaves like a professional camera. It doesn't have the same low-light capabilities, but it has its own strengths that make it a compelling alternative to the D600.

**ITS TALLER BODY** and more substantial hand-grip compared with the GH2 are big boosts to ergonomics, and it includes many more physical controls: there are buttons for white balance, ISO speed, exposure compensation, AE Lock, five customisable function buttons, dual command dials and a rear wheel. The dual dials are used in tandem to good effect. Direct access to shutter speed, aperture and exposure compensation is the most obvious example, but we also appreciated being able to adjust the manual ISO speed and the Auto ISO range via the dual dials. The sculpted shape on the rear makes it a little tricky to perform full revolutions on the rear wheel, though, and we accidentally popped the card slot door a few times, but these are our only ergonomic complaints.

The 1.7-million dot electronic viewfinder is only a little smaller than the D600's

full-frame optical viewfinder, and being electronic, it can overlay lots of useful information. Meanwhile, the 3in screen offers significant advantages over the D600's, being both articulated and touch-sensitive.

Autofocus is spectacularly quick for a contrast-detect system. It delivered 4fps shooting with continuous autofocus, increasing to 5.6fps with fixed focus. When saving JPEGs to a fast SDHC card, it kept these speeds going until the card was full. The only caveat is that noise reduction at ISO3200 and higher is more processor-intensive, so continuous shooting slowed to 2.2fps after 32 frames. Raw shooting slowed to 1.9fps after 23 frames, regardless of the ISO speed. With just 0.4 seconds between shots in normal use, performance is com-

**Can the GH3 really compete with the Nikon D600? The answer is an emphatic yes**

fortably a match for the D600. It was faster in a few areas, such as when it let us carry on shooting while the camera merged HDR shots in the background.

Its built-in wifi is the most sophisticated implementation we've seen. The camera creates an encrypted network for an iOS or Android device to join, whereupon the free Lumix Link app becomes a comprehensive remote control for the camera. The app's Live Control tab receives a VGA live view feed, which can be touched to move the autofocus point. It's suspended while the camera is recording video, however, cruelly dashing our hopes to use an iPad as a remote monitor.

The best thing about the GH2 was its video mode, and the GH3 is even better. 1080p shooting at 50fps has been added to the GH2's 24p, 25p and 50i options. It can record in slow or fast motion – from 40% to 300% – with playback at 24fps. It can shoot in AVCHD format at 24Mbit/sec, but it's also possible to record 24p, 25p and 50p QuickTime AVC clips at 50Mbit/sec. Last but not least, 1080-24p, 1080-

25p and 720-50p are available at 72Mbit/sec using an all-intra codec. This means each frame is described from scratch rather than by updating the previous frame, so even the most frenetic scenes are captured with no perceptible compression artefacts. We also found that the QuickTime modes delivered even sharper details than the AVCHD modes. The resulting files are enormous, but the camera can span multiple 4GB files for uninterrupted recording for up to 30 minutes.

**AUDIO ARTEFACTS CAN** be just as big a problem, but the GH3 avoids this with lenses that autofocus silently and the ability to adjust exposure via the touchscreen. Changing the ISO or shutter speed caused visible jumps in the exposure, but aperture changes were smooth. There are 3.5in microphone and headphone sockets, plus audio metering and the ability to adjust the volume while recording. The lack of a mains power input is a concern for long video shoots, though.

The Nikon D600's videos matched the GH3 for shadow definition and flattering colours, but its details weren't quite as crisp and moiré interference was a problem. It also lacks smooth autofocus, priority exposure modes and aperture control while recording – the GH3 is the clear winner here.

Photo quality has come on a long way since the GH1 and GH2, too. Noise levels were significantly lower, with ISO3200 giving print-worthy results. It couldn't match the noise levels of the full-frame D600, but it was roughly on a par with the best APS-C SLRs and CSCs, such as the Nikon D7000 and Sony NEX-6. The same improvements to colours that we saw in videos were apparent for JPEGs, too, with lifelike skin tones and superb handling of high-contrast scenes. Details were razor-sharp, and subtle textures were handled superbly.

The Panasonic Lumix GH3 has the best video mode of any CSC or SLR we've come across, not just in terms of picture quality but also for features and operation. As a stills camera, the GH3 can't quite compete with the Nikon D600, but it comes surprisingly close, and it's a match for the best cropped-sensor cameras such as the Nikon D7000. With a comprehensive array of Micro Four Thirds lenses available, the Panasonic GH3 is ready and able to compete in the major league. ■

**Labs team**

## Panasonic DMC-GH3

Compact system camera

From parkcameras.com • Price shown for body only

Info panasonic.co.uk

Pro Great photo quality •

Outstanding video mode

Con No mains power

**EDITOR'S CHOICE**

**£1,199** inc VAT











MAC GAME

# Sonic and SEGA All-Stars Racing

*High-octane kart chaos*

**T**he last couple of years have blessed the Mac with some top-notch racing games, but colourful kart racers are a rarity. This one pits a cast of characters from Sega games in wacky races where getting to the head of the pack is as much about cunning use of weapons as it is about speed and timing.

## Sonic and SEGA All-Stars Racing

Racing game for OS X

From Mac App Store

Info feralinteractive.com

**Needs** OS X 10.8.3 or later • 1.8GHz Intel Mac • 4GB RAM • See website for supported GPUs

**Pro** Fast and thrilling • Looks fantastic • Great replayability •

Good value for money

**Con** Some tracks take a while to load • Music too quiet

**£17.49** inc VAT



The core of the game is six Grands Prix, each of which is made up of four tracks themed after Sega games, including the colour-saturated worlds of Sonic and Samba de Amigo, and the grittier House of the Dead series. There's plenty of variety in the look of the courses and in the navigational challenges they present. There are environmental hazards to avoid, traffic to weave between on city streets, and tight 90° turns that leave your head spinning as fast as your wheels.

Points are awarded by position at the end of a race, from ten in first place down to one in eighth. Earning a place on the podium at the end of a Grand Prix allows you to advance to the next one.

Getting around a track is one thing, but crossing a finish line before your opponents means mastering the art of drifting. Hold the drift key and your car turns into a tight slide, allowing you to slide around corners. Soon after, your engine starts to build through three levels of turbo boost, which is triggered by releasing the key as you exit the bend. Recognising when

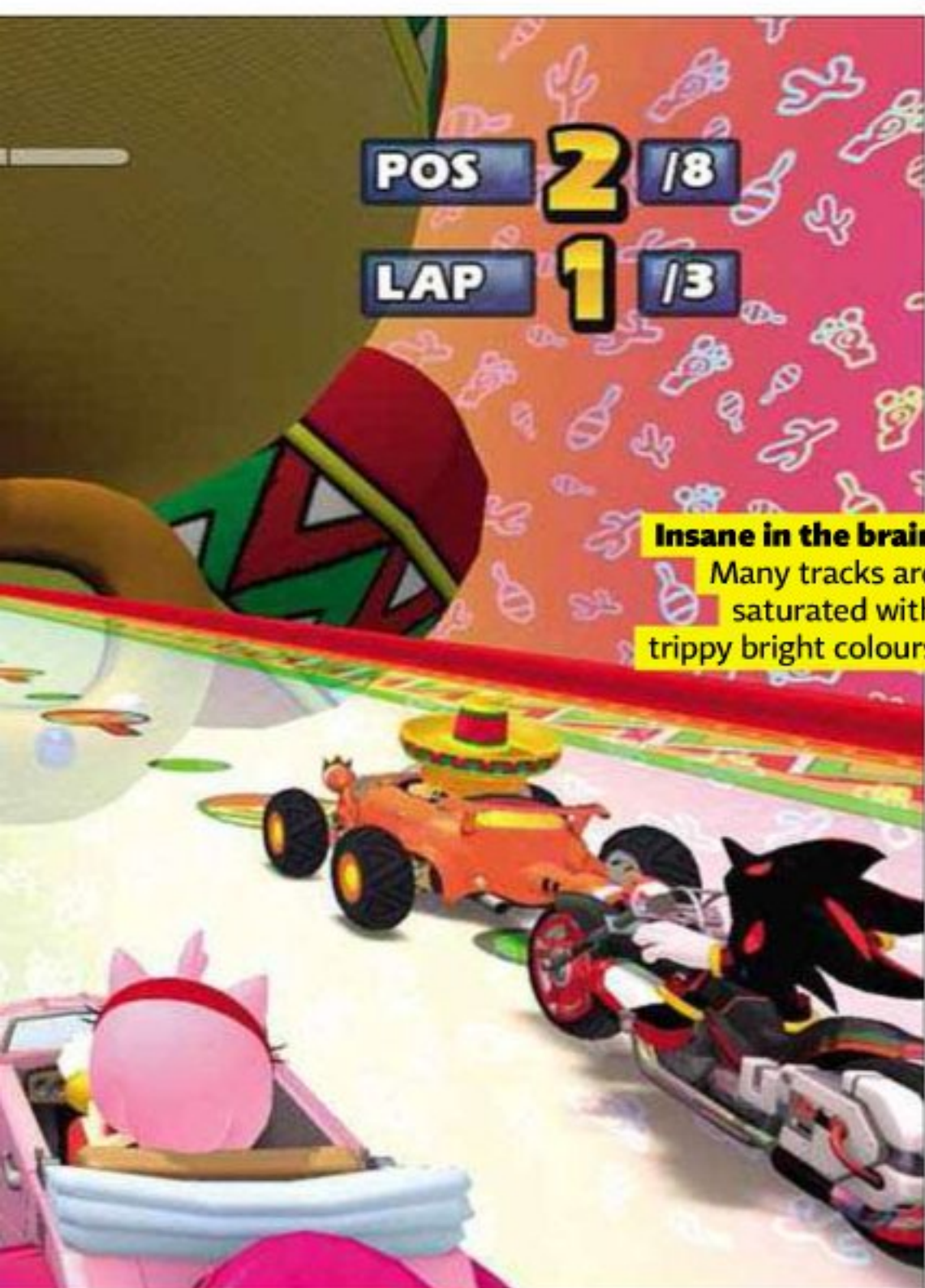
**There are plenty of sudden 90° turns that can leave your head spinning as fast as your wheels**

to exploit this is essential to steal a march on other racers.

Drifting isn't the only way to move up the pack. Canisters can be smashed through to snatch a power-up. Among them are rainbows that stick to an opponent's face and obscure their vision, boxing gloves to knock the person ahead or just behind into a spin, and a temporary shield to protect against foes with the same cruel ideas. The All-Star power-up differs between characters, but each essentially allows you to safely charge forward, bashing others out of the way for a short time.

The power-up you receive might seem random, but the game has a tendency to throw up the All-Star if you fall behind for a long time. Also welcome is the leniency





of keeping a weapon even if you're hit or fall off a track, which is often invaluable for clawing back a lost position.

There are three difficulty settings, and this is the sort of game you'll be happy to play even when you've finished all the Grands Prix on the lower settings. In challenge mode, you get to prove your skills by completing specific tasks. Time trials hook into Game Center, where you can compare your fastest lap times against global leaderboards, and subsequently spend ages trying to shave off fractions of a second.

**MULTIPLAYER MODES INCLUDE** straight races, battles and Capture the Chao. They can be played split-screen on one Mac, over a local network, or online through Game Center. Uptake of the game after a couple of weeks of availability meant we had difficulty finding games against random opponents. However, there's an option to invite friends to participate.

The settings allow you to tweak the number of laps to race, weapon availability and other race parameters. We found the music strangely subdued in the mix, but you can tweak that as well, and turn off the commentator if he annoys you.

Sonic and SEGA All-Stars Racing is a real visual treat that's full of colourful environments and effects that deliver a superb sense of speed. Most important, it's a blast of pure fun. It's best to play using a gamepad, and the game is priced low enough that the total cost isn't huge if you don't already have one. ■

**Alan Stonebridge**

**IOS GAME**

# Unmechanical 1.1

*Weird science*

**I**n Unmechanical, you play the part of a tiny organic helicopter lost in an underground world of metal, rock and flesh. What? You want more back story than that?

In this physics-based game, the reason why you're there – and even the fact of who you are – doesn't matter. You just need to accept the premise and get on with the tricky business of solving the dozens of puzzles that confront you.

As a flying device, you navigate through a sprawling 3D landscape that's both industrial and organic (at one point, you fly down a vast glistening gullet surrounded by bony ribs), tapping the screen ahead of

the helicopter to take you in each direction. The only other control you have is a tractor beam to lift objects, or at least those that are relevant to the gameplay.

**WHAT'S INTRIGUING ABOUT** Unmechanical is that at no point are you told what you have to do. You have to figure it out for yourself. Puzzles may include finding long rods that enable you to open doors by pushing a switch on the other side, tracking down the lightbulbs needed to power a giant heart, or arranging a series of mirrors so that the laser beam trips a switch.

Constantly inventive and beautiful to look at, Unmechanical features a range of genuinely innovative and frequently unique puzzles, no two the same, that will tax your patience and ingenuity. Occasionally tapping the Help button will pop up a cryptic illustration of what needs to be done, but you still have to achieve the goal.

Although you regularly bump against metal parts with a satisfying clang, this is a game in which you can't be killed or injured. It's all about problem-solving, not combat. With no enemies and no time limits, this is relaxing as iOS games get – as long as nobody tells you that you can't have just one more go. ■

**Steve Caplin**

## Unmechanical 1.1

Puzzle game for iOS

**From** App Store

**Info** unmechanical.net

**Needs** iOS 4 or later • iPod, iPhone, iPad

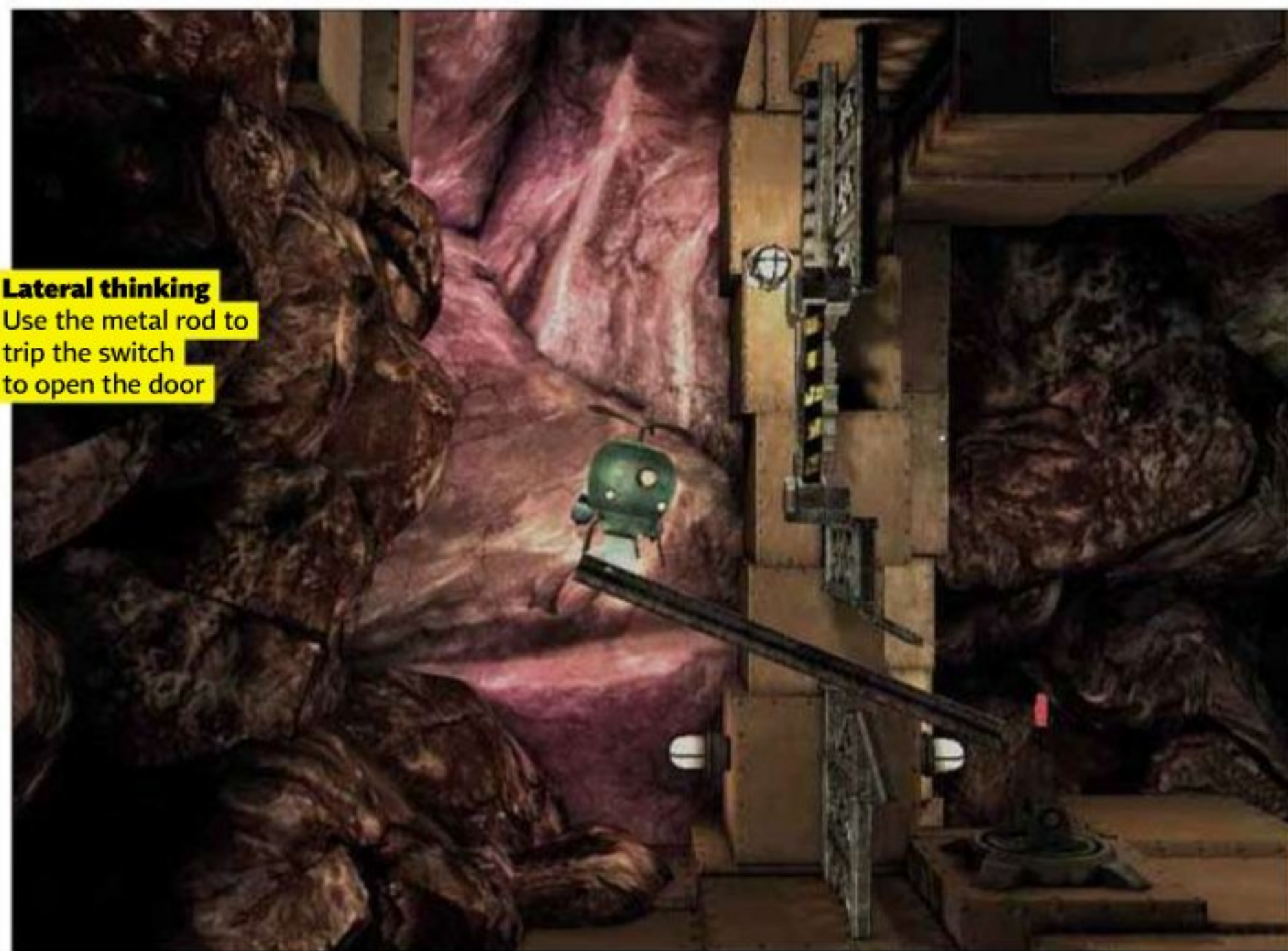
**Pro** Hugely entertaining puzzles • No violence • Gorgeous 3D environment

**Con** The puzzles are occasionally seriously brain-taxing

**£1.99** inc VAT



**Lateral thinking**  
Use the metal rod to trip the switch to open the door





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# THE APPLE BUYER'S GUIDE

Mac and iOS: your options now,  
when to expect new models\*,  
and what specs to watch out for

\*Apple doesn't publish or comment on product launch schedules. 'Expected' dates are best guesses.

## iPad with Retina Display

It was already superb.  
Now it's just incredible.

### Wifi or Cellular?

The basic iPad gets on the internet via wifi. The Cellular model can also take a mobile phone SIM. It's £100 extra, so think about how often you'll need it – especially if you have an iPhone contract that allows Personal Hotspot ('tethering'), which can host the iPad. The Cellular model's LTE chip in the 4th gen and iPad mini supports EE's 4G network, but not the others due to launch in the UK in 2013; it'll still give you top speeds on 3G

### Calls and messaging

You can make FaceTime calls – video or just audio – to other iOS and Mac users (via wifi or 3G) and contact them using Apple's iMessage. You can't make voice calls over the cell network, or use texts (SMS)

### Screen

The 9.7in display is the finest ever made

### Cameras

The 4th generation iPad's iSight camera, the one on the back, is a decent 5 megapixel unit. A tablet makes an unwieldy camera, but shooting stills or 1080p video and editing them on a big screen on the same device is pretty good fun. The FaceTime HD camera on the front delivers a clear 720p

### Connectivity

The iPad has no USB or memory card slot, so it can be tricky getting photos and other data on and off – although iCloud helps. Lightning adaptors are available for USB and SD memory cards

### Battery life

All iPads last about ten hours on a charge

## iPad 2

### Is it worth buying?

With a pretty rubbish camera, a quarter of the Retina model's screen resolution and no Siri support, the iPad 2 is available in 16GB only, at £70 less

than the new full-size iPad. Buying an iPad mini for £60 less could make more sense, and remember the 4th gen has more than enough improvements to justify its price tag.

## Configurations


### iPad with Retina display

<b>Wi-Fi 16GB</b> £399	<b>Cellular 16GB</b> £499
<b>Wi-Fi 32GB</b> £479	<b>Cellular 32GB</b> £579
<b>Wi-Fi 64GB</b> £559	<b>Cellular 64GB</b> £659

### iPad 2 16GB **Wi-Fi** £329 **Cellular** £429

### iPad mini

<b>Wi-Fi 16GB</b> £269	<b>Cellular 16GB</b> £369
<b>Wi-Fi 32GB</b> £349	<b>Cellular 32GB</b> £449
<b>Wi-Fi 64GB</b> £429	<b>Cellular 64GB</b> £529

 Buy now

**Reviewed** Vol 28 No 24

**Last update** October 2012

**Expected** Spring/summer 2013



#### ✦ Lightning

Replacing the iPad 2's 30-pin Dock, the Lightning connector on the 4th gen and mini is neater, but old accessories will need adaptors.

30-pin, USB, SD card, HDMI and VGA adaptors cost £15 to £39 each from Apple



iPad mini shown actual size

4th gen with A6X and Lightning port

## iPad mini

Concentrated, not reduced, as Jonathan Ive puts it. A 7.9in iPad 2, but with 4th generation features like Lightning and new cameras. So practical.

#### ↓ Smart Cover/Case

Apple's fold-up front and all-around cases (the latter only for full-size iPads) are clever, but there are lots of others to choose from





# Mac

## ↓ Magic Mouse

The surface of Apple's latest mouse is a multi-touch pad. Slide or flick one finger across it to scroll within apps; swipe two fingers left or right to move forward and back – for example, between web pages in Safari. The left and right buttons are invisible, but click when pressed. You may need to go to System Preferences > Mouse, tick Secondary Click and choose Right to activate the right button



## Keyboard and mouse

Apple's wireless keyboard and Magic Mouse are included with all Macs except the Mac mini. If you want a wired keyboard with a numeric keypad, opt for this when ordering. You can swap the mouse for a MagicTrackpad at the same price, enabling more gestures.

## ➤ Magic Trackpad

Apple doesn't believe in desktop touchscreens. Reaching out to tap and swipe a vertical display feels so unnatural that users of touchscreen PCs often report that they never use the facility. Instead, Macs have the option of the Magic Trackpad, which accepts similar gestures to those used on the iPad and other iOS devices while you look at the monitor. It takes a little bit of getting used to, but many Mac users are already converted



## AppleCare

Macs come with 90 days' free phone support and a one-year warranty. The optional AppleCare Protection Plan extends these to three years. It doesn't include accidental damage, and most faults are already covered by your Sale of Goods Act rights, but it offers more repair options (including on site for desktop Macs) and tech support. It's transferrable if you sell your Mac

## Mac mini

The cheapest Mac, but just as remarkable as the rest.

### No built-in optical drive

If you want to install software or play movies from DVD, add the external SuperDrive (£65)



If you need more than the standard 4GB of RAM, order chips from a supplier such as [crucial.com/uk](http://crucial.com/uk) to fit yourself – it's easy. 16GB is the quoted maximum, although more might be possible

### Graphics

All the Mac minis have enough graphics power for playing HD movies and modest 3D gaming, but there are no options for a dedicated graphics card comparable to the iMac's NVIDIA GPUs

### Display

Add Apple's screen (opposite) or pick your own: the mini has both DisplayPort and HDMI outputs. It's the only desktop Mac with HDMI built in, aimed at users wanting to connect it to their living-room HDTV set

**Now with four USB3 ports**



## Configurations

### Mac mini 2.5GHz

£499

**CPU** 2.5GHz Dual-core

**Intel Core i5**

**RAM** 4GB

**Hard disk** 500GB (no options)

**Graphics** Intel HD Graphics 4000

### BEST DEAL

### Mac mini 2.3GHz

£679

**CPU** 2.3GHz Dual-core Intel

**Core i7 (2.6GHz i7 +£80)**

**RAM** 4GB

**Hard disk** 1TB (Fusion drive +£200, 256GB SSD +£240)

**Graphics** Intel HD Graphics 4000



## Accessories

Do more with your Mac



**↑ AirPort Extreme** £139  
802.11n wifi router to connect all your Macs and other devices to your ADSL modem or cable modem for internet access. Includes USB 2 port to share a printer or external hard drive



**↑ Time Capsule** £249/£399  
Similar to AirPort Extreme, but with a 2TB or 3TB hard disk built in to back up your Mac(s) via wifi



**← AirPort Express** £79  
Connect a USB printer to

wifi, stream audio wirelessly from Mac or iOS to a hifi, extend your wifi network, or quickly share a wired connection when away.

## Apple 27in Display

A superb 27in monitor based on an IPS panel with LED backlighting. Available with DisplayPort interface (Cinema Display) or with Thunderbolt for the latest Macs. £899



### Mac mini with OS X Server

£849

**CPU** 2.3GHz Quad-core Intel Core i7 (2.6GHz i7 +£80)

**RAM** 4GB

**Hard disk** 2 × 1TB (256GB SSD +£160, 2 × 256GB SSD +£480)

**Graphics** Intel HD Graphics 4000  
Supplied with OS X Server licensed for unlimited clients

**Keyboard and mouse** Not included

Buy now

**Reviewed** Vol 28 No 25  
**Last update** October 2012  
**Expected** Autumn 2013



## iMac

With the computer built into the screen, finished entirely in glass and aluminium, it's now incredibly slim as well as powerful

### Configurations

#### iMac 21.5-inch 2.7GHz

£1,099

**CPU** 2.7GHz Quad-core i5

**Display** 1920 × 1080 16:9

**RAM** 8GB (16GB £160)

**Hard disk** 1TB 5400rpm

**Graphics** NVIDIA GeForce GT 640M with 512MB video RAM

#### iMac 21.5-inch 2.9GHz

£1,249

**CPU** 2.9GHz Quad-core i5 (3.1GHz i7 £160)

**RAM** 8GB (16GB £160)

**Hard disk** 1TB 5400rpm (1TB Fusion Drive £200)

**Graphics** NVIDIA GeForce GT 650M with 512MB video RAM

Buy now

**Reviewed** Vol 29 No 1  
**Last update** November 2012  
**Expected** Autumn 2013

#### iMac 27-inch 2.9GHz

£1,499

**CPU** 2.9GHz Quad-core Intel Core i5

**Display** 2560 × 1440 16:9

**RAM** 8GB (maximum 32GB)

**Hard disk** 1TB 7200rpm (3TB £120, 1TB Fusion Drive £200, 3TB Fusion £320, 768GB SSD £1,040)

**Graphics** NVIDIA GeForce GT 660M with 512MB video RAM

#### iMac 27-inch 3.2GHz

£1,699

**CPU** 3.2GHz Quad-core Intel Core i5 (3.4GHz i7 £160)

**RAM** 8GB (maximum 32GB)

**Hard disk** 1TB 7200rpm (3TB £120, 1TB Fusion Drive £200, 3TB Fusion £320, 768GB SSD £1,040)

**Graphics** NVIDIA GeForce GTX 675MX with 1GB video RAM (GeForce GTX 680MX with 2GB video RAM £120)

**Keyboard and mouse** Included



The 21.5in iMac contains RAM modules that in theory could be swapped, but in practice it's not rated user-upgradable because getting into the case would be a nightmare even for an engineer. If you may need more than 8GB RAM (the maximum is 16GB) you must opt for it at the time of ordering, at Apple's ridiculous price of £160. The 27in iMac has a hatch making RAM upgrades easy; don't even look at Apple's prices, but order 32GB from a memory dealer for around £120 to get the very best performance out of your iMac with demanding creative apps





## Mac Pro

Fully expandable for high-end users.

### Configurations

#### Mac Pro Quad-core

£2,049  
**CPU** 3.2GHz Quad-core Intel Xeon W3565  
**RAM** 6GB (8GB +£80)  
**Hard disk** 500GB (750GB +£80)  
**Graphics** ATI Radeon HD 5770 with 1GB video RAM

#### Mac Pro Server

£2,449  
**CPU** 3.2GHz Quad-core Intel Xeon  
**RAM** 8GB (4 × 2GB modules)  
**Hard disk** 2 × 1TB  
**Graphics** ATI Radeon HD 5770 with 1GB video RAM  
 Supplied with OS X Server licensed for unlimited clients

← **Optical drive bays**  
 One 18x DVD±R DL/DVD±RW/CD-RW SuperDrive is standard, with a second bay free for another if you choose to add it

⚡ **Ports**  
 This is the only Apple machine with ports on the front, and they're still rather sparse. In total you get four FireWire 800, five USB 2 (plus two on the wired keyboard) and two gigabit Ethernet, plus analogue and TOSLINK audio in/out, as well as 802.11n wifi and Bluetooth 2.1

#### Accessories

The Mac Pro has a number of accessories available, including the Apple Keyboard and Apple Mouse.

→ **Memory slots**  
 The processor and RAM slide out on a tray for unobstructed access. Single-processor models can take up to 32GB of RAM, while the dual-processor design takes 64GB. Don't buy your extra RAM from Apple – the prices are crazy

→ **Expansion slots**  
 All four high-speed PCI Express 2.0 slots inside the chassis are retained by a simple bar. The graphics card slot is double-wide, so a large card won't obscure the next slot

→ **Internal drive bays**  
 No tangle of ribbon cables here. These four 3Gbit/sec SATA 3.5in bays slide in and out without wires, and can each take a conventional drive of up to 2TB or a 512GB SSD



The Mac Pro is a superb machine, but the case has barely changed in nine years and even the new processors are old. It's not great value, but it's the only Mac with top-end CPUs and internal expansion



Discontinued

**Last update** June 2012  
**Expected** Autumn 2013

## MacBook Pro

The ultimate combination of power and portability, beautifully engineered.

### Configurations

#### MacBook Pro

**13-inch 2.5GHz**  
 £999  
**CPU** 2.5GHz Dual-core Intel Core i5  
**Display** 13.3in 1280 × 800 16:10  
**RAM** 4GB (8GB +£80)  
**Hard disk** 500GB (750GB +£80, 128GB SSD +£160, more options)  
**Graphics** Intel HD Graphics 4000

#### MacBook Pro

**13-inch 2.9GHz**  
 £1,249  
**CPU** 2.9GHz Dual-core Intel Core i7  
**Display** 13.3in 1280 × 800 16:10  
**RAM** 8GB  
**Hard disk** 750GB (128GB SSD +£80, 256GB SSD +£320, more options)  
**Graphics** Intel HD Graphics 4000

#### MacBook Pro

**15-inch 2.3GHz**  
 £1,499  
**CPU** 2.3GHz Quad-core Intel Core i7  
**Display** 15.4in 1440 × 900 16:10  
 1680 × 1050 +£80 or 1680 × 1050 with anti-glare +£80  
**RAM** 4GB (8GB +£80)  
**Hard disk** 500GB (750GB +£80, 128GB SSD +£160, more options)  
**Graphics** NVIDIA GeForce 650M with 512MB video RAM

#### MacBook Pro 15-inch 2.6GHz

£1,799  
**CPU** 2.6GHz Quad-core Intel Core i7 (2.7GHz i7 +£240)  
**Display** 15.4in 1440 × 900 16:10  
 1680 × 1050 +£80 or 1680 × 1050 with anti-glare +£80  
**RAM** 8GB  
**Hard disk** 750GB (128GB SSD +£80, 512GB SSD +£720)  
**Graphics** NVIDIA GeForce 650M with 1GB video RAM

#### MacBook Pro with Retina display 13-inch 2.5GHz

£1,249  
**CPU** 2.5GHz Dual-core Intel Core i5  
**Display** 13.3in Retina 2560 × 1600  
**RAM** 8GB (no upgrade options)  
**SSD** 128GB (256GB +£250)  
**Graphics** Intel HD Graphics 4000  
 2.5GHz also available at £1,699

#### MacBook Pro with Retina display 15-inch 2.3GHz

£1,799  
**CPU** 2.4GHz Quad-core Intel Core i7  
**Display** 15.4in Retina 2880 × 1800  
**RAM** 8GB (16GB +£160)  
**SSD** 256GB  
**Graphics** NVIDIA GeForce GT 650M with 1GB video RAM  
 2.6GHz also available at £2,299

**New prices and specs**



RAM is upgradable later in all MacBook Pros except the Retina



Buy now

**Last update** Winter 2013  
**Expected** Autumn 2013

#### Webcam

A FaceTime HD camera is built into the bezel at the top centre of the screen, as with the iMac

#### Keyboard

Backlit to make it easier to use in low light. The backlighting adjusts automatically according to ambient light

#### Trackpad

The Multi-Touch trackpad supports OS X Lion's gestures





**Battery life** All MacBook Pro models will last around seven hours on a charge, based on Apple's example of browsing the web via wifi. Without wifi, you could get even longer, but apps that work the processors harder will reduce battery life. Apple's MagSafe connector ensures you won't damage your laptop if you trip over the power cable while charging – the lead just pops out

#### Ports

The 13in and 15in MacBook Pro each have two USB 3 ports, one FireWire 800, one Thunderbolt and Gigabit Ethernet, as well as 802.11n wifi and Bluetooth 4.0, audio in/out and an SDXC Card reader. The MacBook Pro with Retina display has two USB 3 and two Thunderbolt ports, HDMI and SDXC, but needs an adaptor for Ethernet or FireWire

#### Optical drive

All Pros except the Retina have 8x SuperDrive (DVD±R DL/DVD±RW/CD-RW)

#### Screen

Like all Apple displays, the MacBook Pros' screens have a high-gloss finish. This maximises contrast and sharpness, but reflections can be distracting. The 15in model has an optional higher-resolution screen (more pixels packed into the same area), which in turn has an anti-glare option, at extra cost. The 15in Retina display has a resolution of 2880 × 1800, the 13in 2560 × 1600

All MacBook Pros can also drive an external display at up to 2560 × 1600 via the Thunderbolt port. This can act as a Mini DisplayPort to connect to earlier Apple monitors, or connect to DVI or VGA with adaptors from Apple, or to HDMI with third-party adaptors



#### Screen

Both screen sizes have a high dot pitch, packing in more pixels. The incredibly slim surround doesn't flex because it's made of aluminium, not plastic. A FaceTime camera (not HD) is built into the bezel

#### Keyboard

The full-size keyboard is backlit to make it easier to use in low light – for example, when taking notes in a darkened auditorium

#### Battery life

The 11in Air will go for around five hours in general use with wifi on; the 13in will run for seven hours. Standby time is up to a month

#### Trackpad

Very different from the average laptop pad, Apple's Multi-Touch trackpad is highly responsive – like an iPhone screen – and supports scroll, zoom and swipe gestures in OS X

#### Ports

All Airs have two USB 3 ports and one Thunderbolt. The 13in has an SD Card reader, too. Ethernet needs a £25 adaptor

## MacBook Air

Quite simply the most desirable portable computer ever manufactured.

### Configurations

#### MacBook Air 11-inch 64GB

£849

**CPU** 1.7GHz Dual-core Intel Core i5

**Display** 11.6in 1366 × 768 16:9

**RAM** 4GB (8GB +£80) SSD 64GB

**Graphics** Intel HD Graphics 4000

#### BEST DEAL

#### MacBook Air 11-inch 128GB

£929

**CPU** 1.7GHz Dual-core Intel Core i5

**Display** 11.6in 1366 × 768 16:9

**RAM** 4GB (8GB +£80) SSD 128GB

**Graphics** Intel HD Graphics 4000

#### MacBook Air 13-inch 128GB

£999

**CPU** 1.8GHz Dual-core Intel Core i5

**Display** 13.3in 1440 × 900 16:9

**RAM** 4GB (8GB +£80) SSD 128GB

**Graphics** Intel HD Graphics 4000

#### MacBook Air 13-inch 256GB

£1,249

**CPU** 1.8GHz Dual-core Intel Core i5

**Display** 13.3in 1440 × 900 16:9

**RAM** 4GB (8GB +£80) SSD 256GB

**Graphics** Intel HD Graphics 4000



Shoehorned into its slim case, none of the Air's components is upgradable later, even RAM. 4GB is usable, but consider paying extra for more rather than regretting it later. There's no built-in DVD drive, and a flash memory SSD takes the place of a hard disk; Thunderbolt allows fast external storage too



Consider waiting

**Last update** June 2012

**Expected** Summer 2013



11-inch Air shown actual size



# iOS

Because they're all based on the same Apple operating system, iOS, the iPod touch, iPhone and iPad can all run the same apps. Hundreds of thousands are available, covering a vast range of purposes, and because they only come from the App Store, which is managed by Apple, you never have to worry about getting a virus or running a dodgy program that messes up your system.

The iPhone 4 and 4S and the iPod touch 4th generation have a 3.5in Retina display with four times as many pixels as their predecessors, though the iPod's screen isn't of quite such a high quality. The iPhone 5 and iPod touch 5th generation share exactly the same larger Retina display. The iPad 3rd generation similarly doubles the iPad 2's resolution.

**iPad**  
For the iPad, turn back to the beginning of this guide

## iPod touch

With the same screen as the iPhone 5, the touch is a multi-purpose computer and game console that's also excellent for music and movies.

### A5 processor

With the same CPU/GPU chip as the iPhone 4S and iPad 2, the new iPod touch 5th generation is ready for demanding games

### → 5-megapixel camera

The new camera has the same resolution as the much-praised iPhone 4 but with some benefits added from the 4S and iPhone 5

## Configurations

**iPod touch 5th generation 32GB** £249   
**iPod touch 5th generation 64GB** £329   
**iPod touch 4th generation 16GB** £169 



The 4th gen touch, with 3.5in Retina display, is good value, though its slower processor may limit a few new games

 Buy now  
**Reviewed** Upcoming  
**Last updated** Oct 2012  
**Expected** Autumn 2013

Old apps that haven't been updated for Retina run 'pixel doubled' on newer devices, while iPhone apps without an iPad (or 'HD') version run either at their intended pixel size, in the middle of the screen, or doubled in size. Apps that haven't been redesigned for the iPhone 5 display run at their original size, leaving black bars above and below.

Retina iPhone apps won't run on the iPad or iPad 2 at full resolution, even though the iPad has more pixels, but will on the iPad 3rd generation. Apps made just for iPad won't run on other iOS devices.



### ← Loop

The iPod touch comes with a matching wrist strap as well as EarPods

## iPod classic

It doesn't run iOS, but the old-school hard disk iPod gives you an enormous amount of room for music and video

### → Click Wheel

No touchscreen here; slide your finger around the dial to pick options



## Configurations

**iPod classic 160GB** £199 

 Update overdue

### Storage

Like the original iPod (though it's been updated several times), the classic uses a hard disk to provide much greater capacity than the flash memory in every other iOS device. That makes it practical to carry plenty of movies and TV shows as well as music – it'll take up to 200 hours of video, or 40,000 songs



## Apple TV

Rent or buy movies from iTunes on your HDTV or wirelessly stream apps, games, videos and photos from iOS or Mac to the big screen via AirPlay. £99



## iPhone 5

With its stretched Retina display and metal back, the iPhone 5 has a new feel as well as an enhanced 8-megapixel camera and a faster processor chip.




iPhone 5 shown actual size

### ↑ 8-megapixel camera

The resolution stays the same from the 4S, but this is a new camera with better low-light shooting and a scratch-proof sapphire crystal lens cover. The FaceTime camera on the front has been upgraded to 720p HD

### ↗ Siri

Only the iPhone 5, iPhone 4S and iPad 3rd generation support Siri, Apple's built-in voice recognition system

 Buy now

**Reviewed** Vol 28 No 21

**Last update** Sept 2012

**Expected** Autumn 2013



## iPhone 4S

There's little the 4S can't do compared to the 5, so you could pay less by sacrificing the big screen. You still get a Retina display, an 8-megapixel camera and Siri.

## iPhone 4

With a fine but less impressive 5-megapixel camera and no Siri, the iPhone 4 is a cheaper option.

### Configurations

**iPhone 5 16GB** £529

**iPhone 5 32GB** £599

**iPhone 5 64GB** £699

**iPhone 4S 16GB** £449

**iPhone 4 8GB** £319

**All iPhones** ■ Black □ White



The prices shown here are to buy an iPhone direct from Apple which is not locked to any network. You can then shop around for pay-as-you-go or pay-monthly tariffs. Buying an iPhone on contract will cost less initially, but you must keep the contract for 18 months or two years. An iPhone 4 or 4S or a non-CDMA iPhone 5 sold in the US will work in the UK, but check it has been or can be unlocked from its original network. The iPhone 4 and 4S require a micro-SIM, the iPhone 5 a nano-SIM.

## iPod nano

Tiniest touchscreen handles music, video, photos and fitness



### Configurations

**iPod nano 16GB** £129

**iPod shuffle 2GB** £40

 Buy now

### ← Multi-purpose mini

The 77×40mm 7th generation nano comes with EarPods and plays music, video and photos. With no wifi connection, all content has to be synced from a Mac or PC. The nano also includes Nike+, VoiceOver, and an FM radio with pause

↓ **EarPods**  
Improved audio, with inline mic



iPod shuffle shown actual size

## iPod shuffle


Apple's musical postage stamp keeps things simple

**iPod nano and shuffle**

■ ■ ■ ■ ■ ■ ■ ■ ■ ■

### Battery life

The shuffle lasts up to 15 hours, the nano 24

 Buy now

### Voice control

With no screen, you navigate using the clicker while the shuffle speaks options and tells you what track you're on. You can sync playlists from iTunes, let Genius select songs or play a random shuffle. Apple Earphones, not EarPods, are supplied





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*We talk to Jennings Computer Services about its commitment to first-class sales and support*

MIKE JENNINGS ESTABLISHED Jennings in 1980 to provide technical support on a freelance basis to the print and publishing sector, with the company subsequently building up an excellent reputation within that market. However, Jennings also caters for many other types of client, from home users and one-man businesses right through to SMEs, corporates, schools, colleges and charities.

With its two bases in Scarborough and York, Jennings delivers its services throughout the North of England. It also offers the entire Apple range and related products via its online store. Its team of more than 20 expert staff are qualified in varying aspects of IT and are always friendly and eager to help. The company prides itself on its excellent standard of service – for example, any equipment it supplies includes as much after-sales care as its customers need.

As an Authorised Apple Service Provider, Jennings performs Apple warranty

repairs in house irrespective of where the equipment was purchased. It also performs out-of-warranty Apple repairs, health checks, diagnostics and so on. Repairs to iPods and iPhones are also covered. The company has full delivery and collection services for both orders and repairs.

Its 30 years' experience means it provides comprehensive home and business installation services, ranging from a single Mac to a full network suite with Xserve, Raid, structured cabling and cabinet.

It provides an extensive range of Apple training facilities and courses catering for all experience levels. Its most popular is the 'Introduction to Mac' course, which is ideal for new users and costs only £125.

Jennings is also proud of its cross-platform support, and the very high standard to which its technical staff are trained prevents the need for clients to source two independent IT suppliers for their Macs and PCs. ©



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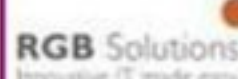
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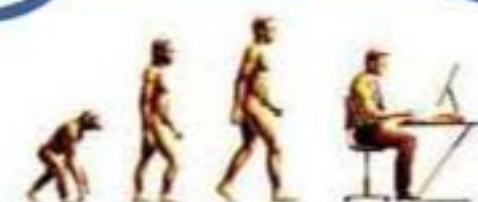
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# Inbox

'Apple stuff is generally user-friendly.  
The App Store submission process isn't' → 22



From **Richard Ellis McCallum**

Adam Banks highlighted how MacBook Pros are being promoted as being 'For the pro in all of us.' But there's still one easy way to spot a true pro MBP user: their display will have a silver bezel.

**(If you don't know, Google it.)**



From **Nick Simpson**

Would I like an iPhone? Actually, yes. But I've got a 4th gen iPod touch which covers music, games and browsing.

My two-year-old BlackBerry Bold does phone, texts, email, Facebook and Twitter, all for £5 to £8 a month. I've just treated it to a new battery because it stopped lasting 24 hours. Any iPhone would be too rich for my income.

My partner's ancient Samsung has just expired; she needs a basic call and text device with qwerty keys or on-screen keyboard and a decent camera. Although my daughter has a SIM-free iPhone 5 on a £10/month deal, an iPhone is too expensive to justify for my wife. Looks like Android or some proprietary-OS horror for her.

Is Apple missing a trick?

**Maybe. But BlackBerry sold you a phone, and look at BlackBerry.**



From **Mike Barlow**

I was perusing the North Korean Pyongyang Times website (it's an interesting read!) when there on the page devoted to current science news I saw this picture, captioned:

*Kim Jong Un finally signs the plan on technical preparations of the strategic rockets of the KPA, ordering them to be on standby for firing so that they can strike at any time the military bases of the US imperialist aggressor*

and so on. On the right we see what looks to be an iMac with keyboard and Magic Mouse! Isn't there a clause in Apple's T&Cs about foreign powers attacking the US?

**Better than that, there's a US trade embargo on exports to North Korea. But Kim probably has friends in China... and a fine sense of irony.**



From **David Babsky**

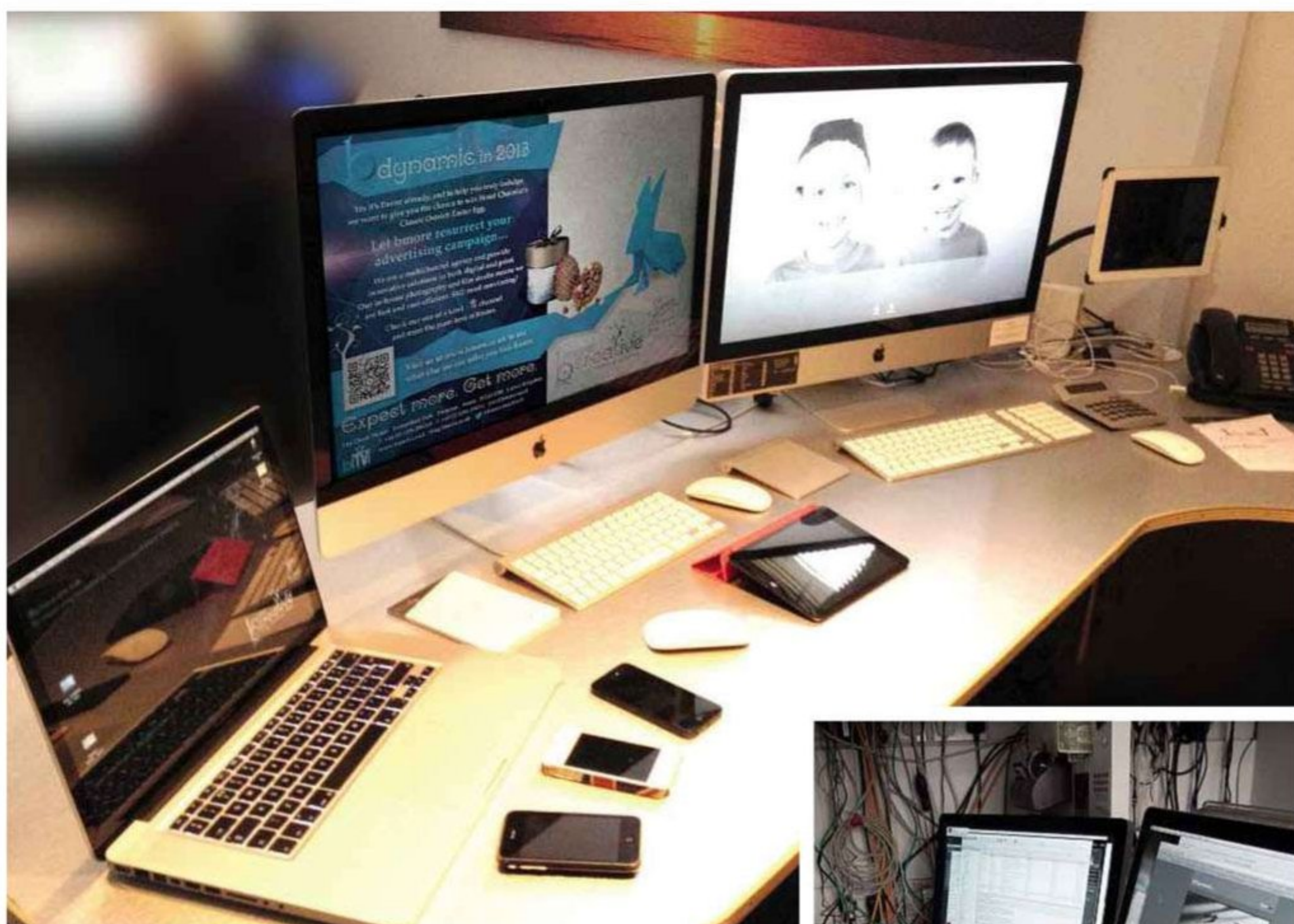
'iWatch' is not a wristwatch. It's not something that displays the time of day.

It's a device with which you, or I, 'watch' – as in watch TV, watch a computer screen, watch a movie, etc. This what Steve meant when he said he'd 'cracked' TV. It's Google Glass – made by Apple!

How do you not see this? We're not talking Clive Sinclair!

**We're totally kicking ourselves.**





## Desk of the Month

Ben Blackmore, Simon Butcher and Manny Ling (top to bottom) contributed to our 'more is more' theme this month, and each win a Just Mobile AluRack, the MacBook caddy that piggybacks on your iMac. Send the best picture of your desk to the email address opposite and you could win a Just Mobile AluBase, worth £39.95, to stow your MacBook in a moment with a minimal footprint. Don't forget to include your postal address, so we know where to send your prize.





# LAST WORD



**KENNY HEMPHILL** has been at MacUser since the week Apple bought NeXT and Steve Jobs returned to the company.

## Come back, kid

*Will Apple recall Johnson to head its retail arm?*

YOU SHOULD NEVER go back. So goes the aphorism. Like re-visiting the scene of a crime, or attempting to reignite a failed relationship or firework, rejoining a company you once worked for, we're told, will only end in tears.

The problem with aphorisms is that while they might generally hold true, there are always exceptions.

Relationships do, occasionally, work the second time around. And there are plenty of examples of people who've returned to work for a previous employer with great success (not looking at any editor-in-chief in particular). While Churchill's second go at being Prime Minister didn't work out, and neither Kenny Dalglish nor Kevin Keegan made much of an impression on their old managerial stomping grounds on their return, there are plenty of examples in both politics and sport of leaders returning to take up the reins and, at the very least, providing a much-needed period of stability.

In business, there's one very obvious example of a prodigal son returning to the fold and not just saving the firm but turning it into the biggest and most successful company on the planet. When Steve Jobs negotiated his role as advisor to CEO Gil Amelio as part of the deal that saw Apple acquire NeXT in 1996, it wasn't because he wanted to be an advisor to Gil Amelio. There was work to be done, the company he co-founded to be saved, and a vision to be implemented.

Sometimes, it becomes clear, you should go back.

And go back is precisely what Apple should invite another of its own to do in the coming weeks. When Ron Johnson, Apple's former head of retail, left to sit in the CEO's chair at US department store chain JC Penney, he did so as an executive with an enviable reputation. Johnson, more than anyone else except Jobs himself, was responsible for building Apple's retail empire from nothing into a chain of hundreds of hugely popular and profitable stores in the space of a decade.

It was precisely that experience, of course, that convinced JC Penney's board that Johnson was the man to rebuild its retail business. And Johnson, it turned out, was ready to take on a new challenge.

To cut a long story short, it didn't go well. Running a whole company, Johnson discovered, is very different from leading the retail arm of a firm like Apple. When JC Penney stock hit a

52-week low in April, the board did what boards do when they panic, and fired the CEO.

Meanwhile, Apple has tried to replace Johnson. And failed. John Browett, hired from Dixons in the first few weeks of Tim Cook's tenure as Apple CEO, seemed to rub everyone up the wrong way from the minute he walked in the door. And despite reportedly improving the pay and working conditions of retail staff, he wasn't mourned when he was sacked last year.

Since then, Apple has lost yet another senior retail executive, vice president Jerry McDougal. Thought by many industry pundits to be top of the list of internal candidates to replace Browett, McDougal left in January to spend more time with his family. His job was handed to finance vice president Jim Beam. So Apple currently has no senior vice president of retail and no vice president of retail. For a company that's invested so much in its bricks and mortar stores in the last 12 years, and is at a crucial stage of expansion in China, those are two massively important seats to fill.

There are clearly no suitable internal candidates, and the recruitment consultants hired to scour the globe for star retail chiefs have apparently drawn a blank.

**COOK ISN'T AVERSE** to inviting senior executives back to the company. It's barely six months since he persuaded Bob Mansfield to put his retirement plans on hold. Reappointing Johnson would be an entirely sensible move. He certainly wouldn't have any trouble fitting in and would be able to get to work immediately.

As Richard Saintvilus pointed out on Seeking Alpha, Samsung is in the process of opening its own stores. In the US, those will be located inside Best Buy (another move with which Johnson will be familiar, although one that didn't work out so well for Apple in the late 1990s). 'Given the competitive advantage that Johnson can lend Samsung by knowing [among other secrets] the secret to Apple's retail success... How much is that worth?' wrote Saintvilus.

Rocco Pendola, on The Street, disagreed, claiming Johnson's success at Apple was achieved by doing 'exactly what Steve Jobs told him to do with Apple retail'. That may be harsh, but not nearly as harsh as Pendola's conclusion: 'Ron Johnson doesn't have the answers Apple needs. He never did. It was all a lie. Not one the delusional Johnson told, but one many of us, particularly AAPL bulls, wanted to believe. Bringing Johnson back to Apple will prove as unimaginative as Penney's decision to call its former CEO in from the bullpen.' (Yes, ironically, they did.)

We know that Steve Jobs micro-managed Apple. We know he had an incredible capacity to be on top of every detail. And there's no doubt his vision shaped the look and feel of Apple's retail stores. But it's ludicrous to think that Johnson learned nothing from that experience, that he didn't understand the vision and couldn't continue to implement it now.

If not him, then who? ■



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